



XXXVIth URSI General Assembly and Scientific Symposium

15-22 August 2026, Kraków, Poland

Proceedings



Saturday, 15 August 2026

Starting time between 09:30 - 10:29

Plus Q Hotel - Espresso

WS-IEEE-1: IEEE AP/S TC3 Workshop on Propagation and Channel Modelling for Standardisation - Part 1

Session Chairs: *Sana Salous, Durham University (UK); Thomas Kürner, Technische Universität Braunschweig (Germany)*

10:00 - 10:10

Sa-WS-IEEE-AM-13-1 Introduction (Invited)

Sana Salous (1); Thomas Kürner (2)
(1) *University of Durham (United Kingdom)*; (2) *Institute for Communications Technology, Technische Universität Braunschweig (Germany)*
[Link to paper: Not available](#)

10:10 - 10:50

Sa-WS-IEEE-AM-13-2 Emerging Trends in RF Propagation Modeling: Perspectives from the NextG Channel Model Alliance (Invited)

Nada Golmie (1)
(1) *NIST (USA)*
[Link to paper: Not available](#)

10:50 - 11:30

Sa-WS-IEEE-AM-13-3 6G Channel Modelling in 3GPP: Advances and ISAC Support (Invited)

Christina Larsson (1)
(1) *Ericsson Research (Sweden)*
[Link to paper: Not available](#)

Starting time between 11:30 - 12:29

Plus Q Hotel - Espresso

WS-IEEE-2: IEEE AP/S TC3 Workshop on Propagation and Channel Modelling for Standardisation - Part 2

Session Chairs: *Sana Salous, Durham University (UK); Thomas Kürner, Technische Universität Braunschweig (Germany)*

12:00 - 12:30

Sa-WS-IEEE-AM-25-1 Propagation and Channel Modelling at ITU-R SG3 (Invited)

Sana Salous (1)
(1) *University of Durham (United Kingdom)*; (2) *Institute for Communications Technology, Technische Universität Braunschweig (Germany)*
[Link to paper: Not available](#)

12:30 - 13:00

Sa-WS-IEEE-AM-25-2 Standardization of the Clutter Loss Model for Slant Paths in ITU-R P.2108 (Invited)

Ke Guan (1)
(1) *State Key Laboratory of Advanced Rail Autonomous Operation & School of Electronics and Information Engineering, Beijing Jiaotong University (China)*
[Link to paper: Not available](#)

Starting time between 13:30 - 14:39

Plus Q Hotel - Espresso

WS-IEEE-3: IEEE AP/S TC3 Workshop on Propagation and Channel Modelling for Standardisation - Part 3

Session Chairs: Sana Salous, Durham University (UK); Thomas Kürner, Technische Universität Braunschweig (Germany)

13:50 - 14:30

Sa-WS-IEEE-PM-06-1 Channel Modelling in ETSI ISG TH (Invited)

Mate Boban (1)
(1) Huawei (Germany)
[Link to paper: Not available](#)

14:30 - 15:00

Sa-WS-IEEE-PM-06-2 Channel modelling for IEEE Std 802.15.3 (Invited)

Thomas Kürner (1)
(1) Institute for Communications Technology, Technische Universität Braunschweig (Germany)
[Link to paper: Not available](#)

15:00 - 15:30

Sa-WS-IEEE-PM-06-3 Channel Modelling Activities of IEEE P194 (Invited)

Michael Walter (1)
(1) DLR (Germany)
[Link to paper: Not available](#)

Starting time between 15:40 - 16:39

Plus Q Hotel - Espresso

WS-IEEE-4: IEEE AP/S TC3 Workshop on Propagation and Channel Modelling for Standardisation - Part 4

Session Chairs: Sana Salous, Durham University (UK); Thomas Kürner, Technische Universität Braunschweig (Germany)

16:10 - 16:40

Sa-WS-IEEE-PM-20-1 Channel Modelling for Wireless Body Area Networks (Invited)

Slawomir Ambroziak (1)
(1) Gdańsk University of Technology (Poland)
[Link to paper: Not available](#)

16:40 - 17:10

Sa-WS-IEEE-PM-20-2 Panel Discussion with all workshop speakers

Sana Salous (1); Thomas Kürner (2)
(1) University of Durham (United Kingdom); (2) Institute for Communications Technology, Technische Universität Braunschweig (Germany)
[Link to paper: Not available](#)

Sunday, 16 August 2026

Starting time between 08:00 - 09:29

ParkInn Hotel

SYS-1: URSI School for Young Scientists - Part 1

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Francesca Apollonio; Kumar Vijay Mishra

08:00 - 10:10

Su-SYS-AM-01-0 Foundations of Adaptive RF Systems (Invited)

Kumar Vijay Mishra (1)
(1) University of Maryland (United States)
[Link to paper: Not available](#)

Starting time between 08:00 - 09:29

PLUS Q Hotel - Espresso

GTW-1: Com G Training Workshop - Scaling and Interpreting Modern Ionograms - Part 1

Session Chairs: Tobias Verhulst, Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence, Belgium; Ivan Galkin, University of Massachusetts, United States; David Themens, University of Birmingham, United Kingdom; Austin Egert, Orion Space Solutions, United States

09:00 - 10:00

Su-GTW-AM-07-1 Scaling and Interpreting Modern Ionograms - Part 1 (Invited)

Tobias Verhulst (1); Ivan Galkin (2); David Themens (3); Austin Egert (4)
(1) Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence (Belgium); (2) University of Massachusetts (United States); (3) University of Birmingham (United Kingdom); (4) Orion Space Solutions (United States)
[Link to paper: Not available](#)

PLUS Q Hotel - Frappe

ATW-1: Com A Training Workshop - "Precision Timekeeping, Atomic Frequency Standards, and Global Time Synchronization" - Part 1

Session Chairs: Sen Gupta Amitava, North Cap University, India
Session Conveners: Giovanna Signorile, Ekkehard Peik, Gaetano Mileti, Poonam Arora, Giulio Tagliaferro

09:00 - 09:15

Su-ATW-AM-07-1 Inauguration (Invited)

Giovanna Signorile (1), Ekkehard Peik (2), Gaetano Mileti, Poonam Arora, Giulio Tagliaferro
(1) INRiM - Istituto Nazionale di Ricerca Metrologica (Italy); (2) Max Planck-RIKEN-PTB Center for Time, Constants and Fundamental Symmetries, Physikalisch-Technische Bundesanstalt (Germany); (3) Faculté des sciences, Institut de physique, Université de Neuchâtel (Switzerland); (4) Time and Frequency Metrology Division, CSIR-National Physical Laboratory (CSIR-NPL) (India); (5) BIPM - Bureau International des Poids et Mesures (France)
[Link to paper: Not available](#)

09:15 - 10:00

Su-ATW-AM-07-2 Basic Terminology and Statistical Methods for Time & Frequency Metrology (Invited)

Demetrios Matsakis (1)
(1) Masterclock Inc. (USA)
[Link to paper: Not available](#)

Starting time between 10:30 - 11:29

ParkInn Hotel

SYS-2: URSI School for Young Scientists - Part 2

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kumar Vijay Mishra, University of Maryland, United States
Session Conveners: Francesca Apollonio; Kumar Vijay Mishra

10:30 - 12:00

Su-SYS-AM-16-0 From Electromagnetic Fields to Human Exposure: Modeling, Interaction and Assessment in Complex Wireless Systems (Invited)

Micaela Liberti (1)
(1) Università Sapienza di Roma (Italy)
[Link to paper: Not available](#)

PLUS Q Hotel - Espresso

GTW-1: Com G Training Workshop - Scaling and Interpreting Modern Ionograms - Part 1

Session Chairs: Tobias Verhulst, Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence, Belgium; Ivan Galkin, University of Massachusetts, United States; David Themens, University of Birmingham, United Kingdom; Austin Egert, Orion Space Solutions, United States

10:30 - 12:00

Su-GTW-AM-16-1 Scaling and Interpreting Modern Ionograms - Part 2 (Invited)

Tobias Verhulst (1); Ivan Galkin (2); David Themens (3); Austin Egert (4)
(1) Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence (Belgium); (2) University of Massachusetts (United States); (3) University of Birmingham (United Kingdom); (4) Orion Space Solutions (United States)
[Link to paper: Not available](#)

PLUS Q Hotel - Frappe

ATW-1: Com A Training Workshop - "Precision Timekeeping, Atomic Frequency Standards, and Global Time Synchronization" - Part 1

Session Chairs: Sen Gupta Amitava, North Cap University, India
Session Conveners: Giovanna Signorile, Ekkehard Peik, Gaetano Mileti, Poonam Arora, Giulio Tagliaferro

10:30 - 11:15

Su-ATW-AM-16-1 UTC and Global Timekeeping Framework (Invited)

Patrizia Tavella (1)
(1) BIPM - Bureau International des Poids et Mesures (France)
[Link to paper: Not available](#)

11:15 - 12:00

Su-ATW-AM-16-2 Atomic Clocks: Evolution and Applications (Invited)

Gaetano Mileti (1)
(1) Faculté des sciences, Institut de physique, Université de Neuchâtel (Switzerland)
[Link to paper: Not available](#)

Starting time between 11:30 - 12:29

Foyer

ECR: ECR Ice Breaker Lunch

Session Chairs: Fritz Bruce, Naval Research Laboratory, United States

Starting time between 12:30 - 13:29

ParkInn Hotel

SYS-3: URSI School for Young Scientists - Part 3

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Francesca Apollonio; Kumar Vijay Mishra

13:00 - 14:40

Su-SYS-PM-01-0 Working Groups (Invited)

Francesca Apollonio (1); Kumar Vijay Mishra (2)
(1) Department of Electronic Engineering, Sapienza University of Rome (Italy); (2) University of Maryland (United States)
[Link to paper: Not available](#)

13:00 - 14:40

Su-GTW-PM-01-1 Scaling and Interpreting Modern Ionograms - Part 3 (Invited)

Tobias Verhulst (1); Ivan Galkin (2); David Themens (3); Austin Egert (4)
(1) Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence (Belgium); (2) University of Massachusetts (United States); (3) University of Birmingham (United Kingdom); (4) Orion Space Solutions (United States)
[Link to paper: Not available](#)

13:00 - 13:45

Su-ATW-PM-01-1 Physics of Atomic Frequency Standards (Invited)

Ekkehard Peik (1)
(1) Max Planck-RIKEN-PTB Center for Time, Constants and Fundamental Symmetries, Physikalisch-Technische Bundesanstalt (Germany)
[Link to paper: Not available](#)

13:45 - 14:30

Su-ATW-PM-01-2&&- & Frequency Transfer Methods (Invited)

Giulio Tagliaferro (1)
(1) BIPM - Bureau International des Poids et Mesures (France)
[Link to paper: Not available](#)

14:30 - 14:40

Su-ATW-PM-01-3 Conclusion and feedback (Invited)

Giovanna Signorile (1), Ekkehard Peik (2), Gaetano Mileti, Poonam Arora, Giulio Tagliaferro
(1) INRiM - Istituto Nazionale di Ricerca Metrologica (Italy); (2) Max Planck-RIKEN-PTB Center for Time, Constants and Fundamental Symmetries, Physikalisch-Technische Bundesanstalt (Germany); (3) Faculté des sciences, Institut de physique, Université de Neuchâtel (Switzerland); (4) Time and Frequency Metrology Division, CSIR-National Physical Laboratory (CSIR-NPL) (India); (5) BIPM - Bureau International des Poids et Mesures (France)
[Link to paper: Not available](#)

Starting time between 14:40 - 15:39

Room P

Opening: Opening Ceremony + Awards Presentation

Session Chairs: *Jozef Modelski, GASS 2026 General Chair*

Su-Opening-PM-13-1 Exoplanets in the Radio

Alex Wolszczan (1)

(1) *Penn State University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BITR5870>

Monday, 17 August 2026

Starting time between 08:00 - 09:29

Room A

A01-1: Antenna and Propagation Measurement Techniques - Part 1

Session Chairs: Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India

Session Conveners: Tian Hong Loh, Steven Weiss, S. Chakraborty, Pedro Pinho

08:30 - 08:50

Mo-A01-AM-04-1 Numerical Validation of Axial Ratio Characterization for Circularly Polarized Antennas By Reconstructing the Phase from E-Field Amplitudes

Htet Wai Htun (1); Jerdvisanop Chakarothei (1, 2); Katsumi Fujii (1); Norihiko Sekine (1)
(1) National Institute of Information and Communications Technology (Japan); (2) National Physical Laboratory (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BUZU9523>

09:10 - 09:30

Mo-A01-AM-04-3 Optimization of Single-Turn Helix Slow-Wave Structure for Travelling-Wave Tube: Towards a Promising RF Source for High Power Antenna (Invited)

Amitavo Roy Choudhury (1); Vaishali Singh (1); Subhradeep Chakraborty (1); Chirag Mistry (1)

(1) CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZBQR2167>

Room B2

B04-1: Inverse scattering and imaging - Part 1

Session Chairs: Andrea Randazzo, University of Genoa, Italy; Raffaele Solimene, Università degli Studi della Campania 'Luigi Vanvitelli', Italy; Shouhei Kidera, The University of Electro-Communications, Japan

Session Conveners: Andrea Randazzo, Raffaele Solimene, Shouhei Kidera

08:30 - 08:50

Mo-B04-AM-04-1 A Hybrid Neural Network and Mild Data-Driven Inversion Approach for Microwave Stroke Imaging

Mohammad Omki (1); Alessandro Fedeli (1); Andrea Randazzo (1)

(1) University of Genoa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DXOJ6583>

08:50 - 09:10

Mo-B04-AM-04-2 Single-Frequency Amplitude-Only Linear Imaging via Phase-Space Inversion

Davide Santagata (1); Raffaele Solimene (1)

(1) Università degli Studi della Campania 'Luigi Vanvitelli' (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HFQD2236>

09:10 - 09:30

Mo-B04-AM-04-3 Preliminary Investigation of a Deep Learning-Based Framework for 1D Inverse Scattering (Invited)

Shaimaa Elseddiq Elghetany (1, 2); Maria Antonia Maisto (3); Gino Sorbello (1); Loreto Di Donato (1)

(1) Catania University (Italy); (2) Reggio Calabria University (Italy); (3) Università degli Studi della Campania 'Luigi Vanvitelli' (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KBQA6416>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/7jLdnpW3k7rWm3n>

Room C

C01-1: Emerging Technologies for Radar & Communications - Part 1

Session Chairs: Kumar Vijay Mishra, University of Maryland, United States; Amir Zaghloul, Virginia Tech, United States

Session Conveners: Kumar Vijay Mishra, Amir Zaghloul

08:30 - 08:50

Mo-C01-AM-04-1 Bandwidth-Limited Dual-Range CC-OFDM MIMO Automotive Radar

Aulia Saharani (1); Gamantyo Hendrantoro (1); Devy Kuswidiastuti (1); Wolfgang Bösch (2); Helmut Paulitsch (2)

(1) Department of Electrical Engineering, Institut Teknologi Sepuluh Nopember (Indonesia);

(2) Institute of Microwave and Photonics Engineering, Graz University of Technology (Austria)

Link to paper: <https://doi.org/10.46620/26-0038>

08:50 - 09:10

Mo-C01-AM-04-2 An Overview of Orbital Angular Momentum Vortex Waves for Joint Radar-Communications (Invited)

Wanghan Lv (1); Kumar Vijay Mishra (2); Long Xiao (1); Zhou Weiwei (1)

(1) Nanjing Tech University (China); (2) University of Maryland (United States); (1) Nanjing Tech University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TAJO8290>

09:10 - 09:30

Mo-C01-AM-04-3 Data compression of radio spectrum using coarse quantization in the frequency domain

Pieter-Tjerk De Boer (1)

(1) University of Twente (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ETPO9223>

Room D

D05-1: Electronic and photonic components for THz systems - Part 1

Session Chairs: Otsuji Taiichi, Center of Excellence ENSEMBLE3 Ltd., Poland; Wojciech Knap, Warsaw University of Technology, Poland

Session Conveners: Taiichi Otsuji, Wojciech Knap

08:30 - 08:50

Mo-D05-AM-04-1 Two-dimensional terahertz beam steering with a programmable liquid crystal metasurface (Invited)

Lan Wang (1)

(1) University of Electronic Science and Technology of China (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BUUK9751>

08:50 - 09:10

Mo-D05-AM-04-2 All-Dielectric Meta-Devices for Multi-Beam Polarization Generation and Manipulation in Terahertz Regime (Invited)

Yuehong Xu (1); Yuma Takida (2); Tetsu Suzuki (2); Hiroaki Minamide (2)
(1) *Aerospace Information Technology University (China)*; (2) *RIKEN (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SDDK8021>

09:10 - 09:30

Mo-D05-AM-04-3 Spectroscopic Measurement for Terahertz wave band via Bi-directional Parametric Wavelength Conversion

Shin'ichiro Hayashi (1); Seigo Ohno (2); Katsuhiko Miyamoto (3); Yoshiharu Urata (4); Kouji Nawata (5); Jun-ichi Shikata (6); Norihiko Sekine (1)
(1) *National Institute of Information and Communications Technology (Japan)*; (2) *Tohoku University (Japan)*; (3) *Chiba University (Japan)*; (4) *PHLUXi, Inc. (Japan)*; (5) *Tohoku Institute of Technology (Japan)*; (6) *Nihon University (Japan)*; (1) *National Institute of Information and Communications Technology (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LJUS7837>

Room E

EBCFJ: Spectrum management and Utilization

Session Chairs: Paolo de Matthaeis, University of Maryland Baltimore County, United States; Tasso Tzioumis, CSIRO, Australia

Session Conveners: Flávio Miguel da Silva Jorge, Paolo de Matthaeis, Tasso Tzioumis, Satheesh Bojja Venkatakrishnan, Kumar Vijay Mishra

08:30 - 08:50

Mo-EBCFJ-AM-04-1 Technical Review of RF Spectrum Management Methodologies and Compatibility Frameworks for the Earth Exploration-Satellite Service (Passive)

Beau Backus (1)
(1) *Johns Hopkins University Applied Physics Laboratory (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/GAPD5471>

08:50 - 09:10

Mo-EBCFJ-AM-04-2 Satellite Unintended Electromagnetic Radiation and the need for EMC standards

Emma Van der Wateren (1); Michael Lindqvist (2); Mislav Balokovic (3); Cees Bassa (1); Di Vruno Federico (4); Fabio Giovanardi (5); Gyula Józsa (6); Benjamin Winkel (6)
(1) *ASTRON (Netherlands)*; (2) *Chalmers (Sweden)*; (3) *Joint Institute for VLBI ERIC (Netherlands)*; (4) *ASTRON (Netherlands)*; (5) *SKA Observatory (United Kingdom)*; (6) *Istituto Nazionale di Astrofisica (INAF) (Italy)*; (6) *Max-Planck-Institut für Radioastronomie (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DCVT7970>

09:10 - 09:30

Mo-EBCFJ-AM-04-3 Radio Astronomy in a Congested Spectrum: Considerations for the Upcoming WRC-27

Fabio Giovanardi (1); Emma Van der Wateren (2); Michael Lindqvist (3); Mislav Baloković (4); Federico Di Vruno (5); Gyula Józsa (6); Benjamin Winkel (6)
(1) *Istituto Nazionale di Astrofisica (INAF) (Italy)*; (2) *ASTRON (Netherlands)*; (3) *Chalmers (Sweden)*; (4) *Joint Institute for VLBI ERIC (Netherlands)*; (5) *SKA Observatory (United Kingdom)*; (6) *Max-Planck-Institut für Radioastronomie (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DDR4143>

Room F

F09-1: Radar detection and imaging of space objects utilizing radio-telescopes and satellites emissions as illuminators of opportunity - Part 1

Session Chairs: Artur Gromek, Institute of Electronic Systems, Poland; Mariusz Pozoga, Space Research Centre of the Polish Academy of Sciences, Poland

Session Conveners: Artur Gromek, Mariusz Pozoga

08:30 - 08:50

Mo-F09-AM-04-1 Exploiting Multi-beam Signals for Improving LEO Object Detection in Passive Radar with LOFAR Radio Telescope

Piotr Wojtowicz (1); Konrad Jedrzejewski (1); Rafal Najda (1); Mariusz Pozoga (2); Hanna Rothkaehl (2)

(1) Warsaw University of Technology (Poland); (2) Space Research Centre of the Polish Academy of Sciences (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JGHT5985>

08:50 - 09:10

Mo-F09-AM-04-2 Passive Radar Localization of LEO Space Objects Utilizing Terrestrial Illuminators of Opportunity – Experimental Results

Artur Gromek (1); Konrad Jędrzejewski (1)

(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WUNS6118>

09:10 - 09:30

Mo-F09-AM-04-3 Passive SAR Demonstrator for Military Applications

Damian Gromek (1); Jakub Julczyk (1); Marek Ciesielski (1); Michał Sęktas (1); Marcin Piasecki (2)

(1) Warsaw University of Technology (Poland); (2) Warsaw University of Technology, Division of Theory of Machines and Robots (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OKJO4898>

Room G1

G02-1: International Beacon Satellite Studies - Part 1

Session Chairs: Bruno Nava, International Centre for Theoretical Physics, Italy; Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland

Session Conveners: Bruno Nava, Andrzej Krankowski, Seebany Datta-Barua

08:30 - 08:50

Mo-G02-AM-04-1 Investigation of ionospheric plasma irregularities occurrence with IGS ROTI Maps: history, current status, and new developments (Invited)

Iurii Cherniak (1); Irina Zakharenkova (1); Andrzej Krankowski (2)

(1) University Corporation for Atmospheric Research (United States); (2) University of Warmia and Mazury in Olsztyn (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EZMZ9928>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/tz3dPeNJop5ttpP>

08:50 - 09:10

Mo-G02-AM-04-2 Ionospheric degradation of GNSS positioning quality: a discussion about causes, impact, and forecast

Biagio Forte (1); João F. Galera Monico (2); Bruno C. Vani (3); Ingemar Häggström (4); Sam Lo (1); Ben Boyde (1); Paul Kinsler (1); Tianchu Lu (1); Andrzej Krankowski (5)

(1) University of Bath (United Kingdom); (2) Sao Paulo State University - UNESP (Brazil); (3) Federal Institute of Education, Science and Technology of São Paulo – IFSP (Brazil); (4)

EISCAT AB (Sweden); (1) University of Bath (United Kingdom); (5) University of Warmia and Mazury in Olsztyn (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TPWM6032>

09:10 - 09:30

Mo-G02-AM-04-3 Using Galileo AltBOC Observations for Ionospheric Irregularity Studies

Reza Ghoddousi-Fard (1)

(1) Canadian Geodetic Survey, Natural Resources Canada (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XUIQ4426>

Room H

H02-1: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 1

Session Chairs: David Hartley, University of Iowa, United States; Ondrej Santolik, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic

Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

08:30 - 08:50

Mo-H02-AM-04-1 Calculating quasi-linear diffusion rates using different methods to specify the wave spectrum

Johannes Sadler (1, 2); Richard Horne (1); Sarah Glauert (1); Tom Daggitt (1); Jay Albert (3); Giulio Del Zanna (2)

(1) British Antarctic Survey (United Kingdom); (2) University of Cambridge (United Kingdom); (3) Air Force Research Lab (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IIIZ9895>

08:50 - 09:10

Mo-H02-AM-04-2 Electron Advection due to Nonlinear Wave-Particle Interactions in the Outer Radiation Belt

Samuel Hunter (1); Oliver Allanson (1); Adnane Osmane (2); Sean Elvidge (1)

(1) University of Birmingham (United Kingdom); (2) University of Helsinki (Finland); (1) University of Birmingham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YBFV6004>

09:10 - 09:30

Mo-H02-AM-04-3 Responses of outer radiation belt electrons to geomagnetic storms: A statistical analysis based on data assimilative results

Xing Cao (1); Binbin Ni (1); Yuan Lei (1)

(1) Wuhan University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YWLO1891>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/iSTdJgcBtPqGWYc>

Room J1

J06-1: (sub)millimetre astronomy - Part 1

Session Chairs: Luca Olmi Luca, Istituto Nazionale di Astrofisica (INAF), Italy; Mohamed Darwish, National Research Institute of Astronomy and Geophysics, Egypt

Session Conveners: Li Jing, Luca Olmi, Mohamed Darwish

08:30 - 08:50

Mo-J06-AM-04-1 Quasi-Optical Reflective Dichroic for Frequency Splitting at Millimetre Wavelengths

Giampaolo Pisano (1)

(1) Sapienza University of Rome (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UYVN5451>

08:50 - 09:10

Mo-J06-AM-04-2 Metal-Mesh Toraldo Pupil for Super-Resolution in K-band (Invited)

Giampaolo Pisano (1)
(1) *Sapienza University of Rome (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LJAD5438>

09:10 - 09:30

Mo-J06-AM-04-3 Quasi-Optical and GRASP Analysis of a Super-Resolution Optical Module for the Medicina and Noto Radio Telescopes

Luca Olmi (1); Rodolfo M. Dernini (1); Renzo Nesti (1)
(1) *Istituto Nazionale di Astrofisica (INAF) (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BBMG7878>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/DjoLHy7ANxs5MYP>

Room J2

JG-1: Mutual benefit between radio astronomy and ionospheric science - Part 1

Session Chairs: Maaijke Mevius, *ASTRON, Netherlands*; Rebecca Ghidoni, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Leszek Błaszkwicz, *University of Warmia and Mazury in Olsztyn, Poland*

Session Conveners: Maaijke Mevius, Rebecca Ghidoni, Leszek Błaszkwicz, Kasia Beser

08:50 - 09:10

Mo-JG-AM-04-1 Signs of Ionospheric Variability in Pulsar Observations

Leszek Błaszkwicz (1); Yuriy Rapoport (1); Andrzej Krankowski (1); Biagio Forte (2); Adam Fron (1); Wojciech Lewandowski (3); Marcin Gawronski (4); Bartosz Dabrowski (1); Michal Kownacki (1); Bartosz Radzanowski (1); Tianchu Lu (2); Aleksandra Wolowska (1); Paul Kinsler (2)
(1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *University of Bath (United Kingdom)*; (3) *University of Warmia and Mazury in Olsztyn (Poland)*; (4) *Nicolaus Copernicus University (Poland)*; (1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *University of Bath (United Kingdom)*; (1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *University of Bath (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CBNA5705>

09:10 - 09:30

Mo-JG-AM-04-2 Multi-instrument detection of ionospheric structures: a discussion about their potential, their sensitivity, and their limitations (Invited)

Biagio Forte (1); Mario M. Bisi (2); John S. Morgan (3); Richard A. Fallows (2); Andrzej Krankowski (4); Leszek Błaszkwicz (4); Steve Milan (5); David Jackson (6); Bernard V. Jackson (7); Dusan Odstrcil (8, 9); Paul Kinsler (1); Tianchu Lu (1); Michaela Mooney (5); Oyuki Chang (2); David Barnes (2); Edmund Henley (6); Siegfried Gonzi (6); Ingemar Häggström (10); Derek McKay (11); Antti Kero (12); Aadam Fron (4); Michał Kownacki (4); Bartosz Radzanowski (4); Katarzyna Beser (13)
(1) *University of Bath (United Kingdom)*; (2) *RAL Space, United Kingdom Research and Innovation (UKRI) – Science & Technology (United Kingdom)*; (3) *CSIRO, Space and Astronomy (Australia)*; (4) *University of Warmia and Mazury in Olsztyn (Poland)*; (5) *University of Leicester (United Kingdom)*; (6) *Met Office (United Kingdom)*; (7) *University of California, San Diego (United States)*; (8) *George Mason University (United States)*; (9) *NASA Goddard Space Flight Center (United States)*; (11) *Aalto University (Finland)*; (12) *Sodankylä Geophysical Observatory (Finland)*; (13) *New Jersey Institute of Technology (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XAOE8378>

Room K

K01: Biological Effects and Health Implications of EM Fields

Session Chairs: Olga Zeni, National Research Council of Italy, Italy; Florence Poulletier de Gannes, IMS Laboratory - Bordeaux University, CNRS, France; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Florence Poulletier, Olga Zeni, Lars Ole Fichte

08:30 - 08:50

Mo-K01-AM-04-1 From Biophysical Measurements to Risk Perception: Long-Term Evidence on Electromagnetic Hypersensitivity

Grzegorz Tatoń (1)

(1) Jagiellonian University Medical College, Faculty of Medicine (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YXHY3151>

08:50 - 09:10

Mo-K01-AM-04-2 The impact of electronic devices on health - perspective of Polish university students

Patryk Bałut (1); Kamila Undas (1, 2); Norbert Kapczyński (1); Ewa Łada-Tondyra (3); Sławomir Hausman (4); Grzegorz Tatoń (1)

(1) Jagiellonian University Medical College, Faculty of Medicine (Poland); (2) JU, Faculty of Physics, Astronomy and Applied Computer Science (Poland); (1) Jagiellonian University Medical College, Faculty of Medicine (Poland); (3) Czestochowa University of Technology (Poland); (4) Lodz University of Technology, Institute of Electronics (Poland); (1) Jagiellonian University Medical College, Faculty of Medicine (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NIXA4556>

09:10 - 09:30

Mo-K01-AM-04-3 Clinical encounters with patients reporting IEI-EMF: a survey of Polish physicians.

Jakub Popielak (1); Kamila Undas (1, 2); Gabriela Kanclerz (2, 3); Grzegorz Tatoń (1)

(1) Jagiellonian University Medical College, Faculty of Medicine (Poland); (2) Jagiellonian University in Kraków (Poland); (3) Maria Skłodowska Curie National Institute of Oncology-Kraków branch (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IXHN2012>

Room P

SPC-1: SPC Special Session - Part 1

Session Chairs: Sembiam R. Rengarajan, California State University (YSA), SPC Chair

08:30 - 08:50

Mo-SPC-AM-04-1 Pulse scattering by a chiral spherical shell

Héctor Iga Buitrón (1); Tom Mackay (1); Akhlesh Lakhtakia (2)

(1) The University of Edinburgh (United Kingdom); (2) The Pennsylvania State University (United States)

Link to paper: Not available

08:50 - 09:10

Mo-SPC-AM-04-2 An OSRC Preconditioner for the PMCHWT Equation

Simon Verbruggen (1); Van Chien Le (1); Kristof Cools (1); Paul Escapil-Inchauspé (2); Carlos Jerez-Hanckes (2)

(1) Ghent University (Belgium); (2) INRIA Chile (Chile)

Link to paper: Not available

09:10 - 09:30

Mo-SPC-AM-04-3 Contrast-Source-Based Physics-Driven Neural Network for Inverse Scattering Problems

Yutong Du (1); Zicheng Liu (1)

(1) School of Electronics and Information, Northwestern Polytechnical University (China)

[Link to paper: Not available](#)

09:30 - 09:50

Mo-SPC-AM-04-4 Ray-Tracing Assisted Phase Correction for Inverse Source Reconstruction Based Through-Wall Passive Radar Imaging (Invited)

Quanfeng Wang (1); Thomas F. Eibert (1)

(1) Technical University of Munich (Germany)

[Link to paper: Not available](#)

09:50 - 10:10

Mo-SPC-AM-04-5 Bandwidth-Limited Dual-Range CC-OFDM MIMO Automotive Radar

Aulia Saharani (1); Gamantyo Hendrantoro (1); Devy Kuswidiastuti (1); Wolfgang Bösch (2);

Helmut Paulitsch (2)

(1) Department of Electrical Engineering, Institut Teknologi Sepuluh Nopember (Indonesia);

(2) Institute of Microwave and Photonics Engineering, Graz University of Technology (Austria)

[Link to paper: Not available](#)

Starting time between 08:00 - 09:29

Room B1

B09-1: Novel mathematical methods in electromagnetics - Part 1

Session Chairs: Kazuya Kobayashi, Chuo University, Japan; John Volakis, Florida International University, United States

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

08:50 - 09:10

Mo-B09-AM-06-1 Physics Informed Neural Networks and their Applications in Electromagnetics (Invited)

Nursat Priota (1); Constantinos Zekios (1); John Volakis (1)

(1) Florida International University (United States)

[Link to paper: https://doi.org/10.46620/URSIGASS26/CXYV4452](https://doi.org/10.46620/URSIGASS26/CXYV4452)

09:10 - 09:30

Mo-B09-AM-06-2 Dipole Radiation Over a Radially Inhomogeneous Impedance Surface (Invited)

Ramakrishna Janaswamy (1)

(1) University of Massachusetts (United States)

[Link to paper: https://doi.org/10.46620/URSIGASS26/FDCS4341](https://doi.org/10.46620/URSIGASS26/FDCS4341)

Room G2

G05-1: Thermosphere-Ionosphere Coupling Under Disturbed and Quiet Geomagnetic Conditions - Part 1

Session Chairs: Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Loredana Perrone, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Dario Sabbagh, Loredana Perrone, Mamoru Ishii

08:50 - 09:10

Mo-G05-AM-06-1 Ionospheric Joule Heating and Neutral Mass Density Variations at Low Earth Orbits During Geomagnetic Storms

Heikki Vanhamäki (1); Marcus Perdersen (1); Anita Aikio (1); Lei Cai (1); Milla Myllymaa (1)
(1) University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CRGM4809>

09:10 - 09:30

Mo-G05-AM-06-2 Relationship between field-aligned currents and the main ionospheric trough during disturbed and calm geomagnetic conditions

Agata Chuchra (1); Barbara Matyjasiak (1); Dorota Przepiórka-Skup (1); Hanna Rothkaehl (1)

(1) Space Research Centre of the Polish Academy of Sciences (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDUG5377>

Starting time between 09:30 - 10:29

Room A

A01-2: Antenna and Propagation Measurement Techniques - Part 2

Session Chairs: Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India

Session Conveners: Tian Hong Loh, Steven Weiss, S. Chakraborty, Pedro Pinho

09:30 - 09:50

Mo-A01-AM-10-1 A Compact and Cost-Effective Reflectarray-Based Antenna Measurement System for Production-Line Testing in Space-Constrained Environments

Po-Cheng Hsieh (1); Yuan-Chun Lin (1); Yu-Teng Chang (1); Wei-Lun Hsu (1); Shih-Cheng Lin (1); Chia-Chan Chang (1)

(1) National Chung Cheng University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VPRX2335>

Room B1

B09-2: Novel mathematical methods in electromagnetics - Part 2

Session Chairs: Kazuya Kobayashi, Chuo University, Japan; John Volakis, Florida International University, United States

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

09:30 - 09:50

Mo-B09-AM-10-1 Sommerfeld/Brillouin Precursor Pulse Train Formation in Ultrashort Pulse Transmission through a Linear, Causally Dispersive Dielectric Slab

Constantinos Balictsis (1)

(1) Hellenic Telecommunications and Post Commission-EETT (Greece)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SXJL1056>

09:50 - 10:10

Mo-B09-AM-10-2 Near-Field Expressions for Circular Apertures Containing Uniform, Tapered, and TE11 Mode Electric Field Distributions (Invited)

Charles Nelatury (1); Douglas Werner (1)
(1) Penn State University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FYVU4952>

Room B2

B04-2: Inverse scattering and imaging - Part 2

Session Chairs: [Andrea Randazzo, University of Genoa, Italy](#); [Raffaele Solimene, Università degli Studi della Campania 'Luigi Vanvitelli', Italy](#); [Shouhei Kidera, The University of Electro-Communications, Japan](#)

Session Conveners: [Andrea Randazzo, Raffaele Solimene, Shouhei Kidera](#)

09:30 - 09:50

Mo-B04-AM-10-1 Quantitative Monitoring of Complex Permittivity Changes during Microwave Breast Cancer Ablation using Background-Updating Contrast Source Inversion

Satoru Nishimura (1); Shouhei Kidera (1)
(1) The University of Electro-Communications (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VKRU1806>

09:50 - 10:10

Mo-B04-AM-10-2 Fast Identification of Small Dielectric Objects in a Bistatic Measurement Configuration (Invited)

Won-Kwang Park (1)
(1) Kookmin University (South Korea)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QVIM2018>

Room C

C01-2: Emerging Technologies for Radar & Communications - Part 2

Session Chairs: [Kumar Vijay Mishra, University of Maryland, United States](#); [Amir Zaghloul, Virginia Tech, United States](#)

Session Conveners: [Kumar Vijay Mishra, Amir Zaghloul](#)

09:30 - 09:50

Mo-C01-AM-10-1 Meteor-M LRPT Reception and CCSDS Viterbi-RS Decoding Using RTL-SDR and QFH Antenna

Jiajun Li (1); Md Tanvin Ahsan (1); Mingwei Qin (1); Ning Zhang (2); Jinsong Ping (3); Xinyu Zuo (1)
(1) Southwest University of Science and Technology (China); (2) Urumqi Monitoring Station of State Radio Monitoring Center (China); (3) University of Chinese Academy of Sciences (China); (1) Southwest University of Science and Technology (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GTAP3770>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/AjTDP5sKEzCp6pe>

09:50 - 10:10

Mo-C01-AM-10-2 Multi-Target Vital Sign Measurement Using an I/Q Detection MIMO CW Radar with Blind Source Separation Technique in Time Domain

Litian Fu (1); Yicheng Song (2); Ryo Natsuaki (1); Akira Hirose (1)
(1) The University of Tokyo (Japan); (2) Nagoya Institute of Technology (Japan); (1) The University of Tokyo (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OLGY5459>

Room D

D05-2: Electronic and photonic components for THz systems - Part 2

Session Chairs: Otsuji Taiichi, Center of Excellence ENSEMBLE3 Ltd., Poland; Wojciech Knap, Warsaw University of Technology, Poland

Session Conveners: Taiichi Otsuji, Wojciech Knap

09:30 - 09:50

Mo-D05-AM-10-1 Supercoupling Regulation of Terahertz Topological Kink States on Chip

Jianfei Li (1); Chen Chen (1); Jingfeng Yao (1); Chengxun Yuan (1); Zhongxiang Zhou (1)
(1) Harbin Institute of Technology (China)

Link to paper: <https://doi.org/10.46620/26-0078>

09:50 - 10:10

Mo-D05-AM-10-2 Flat Optical Structures for Beam Steering in Terahertz Systems

Adrianna Nieradka (1); Mateusz Kaluza (1); Paweł Komorowski (2); Agnieszka Siemion (1)
(1) Warsaw University of Technology (Poland); (2) Military University of Technology (Poland); (1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VHXS7874>

Room F

F09-2: Radar detection and imaging of space objects utilizing radio-telescopes and satellites emissions as illuminators of opportunity - Part 2

Session Chairs: Mariusz Pozoga, Space Research Centre of the Polish Academy of Sciences, Poland; Artur Gromek, Institute of Electronic Systems, Poland

Session Conveners: Artur Gromek, Mariusz Pozoga

09:30 - 09:50

Mo-F09-AM-10-1 Passive Radar Systems for Space Applications

Krzysztof Kulpa (1); Konrad Jedrzejewski (1)
(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FEXB4196>

Room G1

G02-2: International Beacon Satellite Studies - Part 2

Session Chairs: Bruno Nava, International Centre for Theoretical Physics, Italy; Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland

Session Conveners: Bruno Nava, Andrzej Krankowski, Seebany Datta-Barua

09:30 - 09:50

Mo-G02-AM-10-1 A New TEC Fluctuation Parameter from BDS GEO Observations for studying Equatorial Plasma Bubbles

Guanyi Ma (1); Li Jinghua (1); Qingtao Wan (1); Jiangtao Fan (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MOYA1056>

09:50 - 10:10

Mo-G02-AM-10-2 Performance analysis of a small-form low-power GNSS receiver from an anomaly crest location

Ashik Paul (1); Anamika Das (1); Bruno Nava (2)
(1) Institute of Radio Physics and Electronics, University of Calcutta (India); (2) The Abdus Salam International Centre for Theoretical Physics (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZFVA8544>

Room G2

G05-2: Thermosphere-Ionosphere Coupling Under Disturbed and Quiet Geomagnetic Conditions - Part 2

Session Chairs: Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Loredana Perrone, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Dario Sabbagh, Loredana Perrone, Mamoru Ishii

09:30 - 09:50

Mo-G05-AM-10-1 Advancing Ionosphere–Thermosphere Modeling: Insights from NASA ICON and Global Electrodynamics (Invited)

Astrid Maute (1); Thomas Immel (2); Slava Merkin (3)
(1) Leibniz Institute of Atmospheric Physics (Germany); (2) University of California, Berkeley (United States); (3) Johns Hopkins University Applied Physics Laboratory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YSWL1756>

09:50 - 10:10

Mo-G05-AM-10-2 A mechanism of daytime F2-layer parameters perturbation at the geomagnetic equator during severe magnetic storms

Loredana Perrone (1); Andrey Mikhailov (2)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (2) IZMIRAN (Russia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NYIQ4728>

Room H

H02-2: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 2

Session Chairs: David Hartley, University of Iowa, United States; Ondrej Santolik, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic

Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

09:50 - 10:10

Mo-H02-AM-10-2 Pitch Angle Diffusion: Trapped and Precipitating Fluxes

Jay Albert (1)
(1) Air Force Research Lab (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YAVM6560>

Room J1

J06-2: (sub)millimetre astronomy - Part 2

Session Chairs: Luca Olmi Luca, Istituto Nazionale di Astrofisica (INAF), Italy; Mohamed Darwish, National Research Institute of Astronomy and Geophysics, Egypt

Session Conveners: Li Jing, Luca Olmi, Mohamed Darwish

09:30 - 09:50

Mo-J06-AM-10-1 Development of a Wideband IF Processor for the ALMA Wideband Sensitivity Upgrade

Eric Villard (1); Benjamin Quertier-Dagorn (2); Neil Phillips (1); Stéphane Gauffre (2); Théo Chicard (2); Valentin Hazard (2); Vincent Carlier (2); Willy D'Anna (2); Theotime Sergeant (2); Hervé Soulié (2); Carlos Alberto Duran (1); Martin Zwaan (1)
(1) European Southern Observatory (Germany); (2) Laboratoire d'astrophysique de Bordeaux, Univ. Bordeaux, CNRS (France); (1) European Southern Observatory (Germany); (2) Laboratoire d'astrophysique de Bordeaux, Univ. Bordeaux, CNRS (France); (1) European Southern Observatory (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IYER4330>

Room J2

JG-2: Mutual benefit between radio astronomy and ionospheric science - Part 2

Session Chairs: Maaijke Mevius, *ASTRON, Netherlands*; Rebecca Ghidoni, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Leszek Błaszkwicz, *University of Warmia and Mazury in Olsztyn, Poland*

Session Conveners: Maaijke Mevius, Rebecca Ghidoni, Leszek Błaszkwicz, Kasia Beser

09:30 - 09:50

Mo-JG-AM-10-1 Correcting Ionospheric Faraday Rotation for the VLA and MeerKAT

Richard Perley (1); Bryan Butler (1); Eric Greisen (1); Benjamin Hugo (2); Evangelia Tremou (1); Anthony Willis (3)

(1) *National Radio Astronomy Observatory (United States)*; (2) *South African Radio Astronomy Observatory (South Africa)*; (1) *National Radio Astronomy Observatory (United States)*; (3) *Dominion Radio Astrophysical Observatory (Canada)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KWGC5043>

09:50 - 10:10

Mo-JG-AM-10-2 Spinifex, a new tool to calculate ionospheric Faraday rotation

Maaijke Mevius (1, 2); Alec Thomson (3); Tammo Jan Dijkema (1)

(1) *ASTRON (Netherlands)*; (2) *University of Groningen (Netherlands)*; (3) *SKA Observatory (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MBGK1876>

Room K

K01 & K03-1: Biological Effects and Electromagnetic Modulation in Living Systems - Part 1

Session Chairs: Olga Zeni, *National Research Council of Italy, Italy*; Michal Cifra, *Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic*; Lluís M. Mir, *Université Paris-Saclay, Institut Gustave Roussy, CNRS, France*; Francesca Apollonio, *Sapienza University of Rome, Italy*

Session Conveners: Florence Poulletier, Olga Zeni, Lars Ole Fichte, Lluís Mir, Michal Cifra, Francesca Apollonio

09:30 - 09:50

Mo-K01 & K03-AM-10-1 Frequency-Dependent Modulation of Cell Proliferation Dynamics and G2/M Cell-Cycle Control by Weak Extremely Low-Frequency Electromagnetic Fields

Nhat Dang (1); Jason Keller (1); Marek Bajtos (2); Shani Tzarfati (1); Frank Barnes (1)

(1) *University of Colorado Boulder (United States)*; (2) *University of Zilina (Slovakia)*; (1) *University of Colorado Boulder (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YGWV2025>

09:50 - 10:10

Mo-K01 & K03-AM-10-2 STEPS EMF: An Interdisciplinary Approach for Enhancing Bioelectromagnetics Research Quality - Double Blind Assessment of Effects by 28 GHz Electromagnetic field exposure-

Masateru Ikehata (1); Toshio Kamijyo (2); Alfred Kik (2); Aki Hada (2); Sachiko Yoshie (1); Akira Ushiyama (3); Keiji Wada (2); Yukihisa Suzuki (2); Kenji Hattori (4)

(1) *Railway Technical Research Institute (Japan)*; (2) *Tokyo Metropolitan University (Japan)*; (1) *Railway Technical Research Institute (Japan)*; (3) *National Institute of Public Health (Japan)*; (2) *Tokyo Metropolitan University (Japan)*; (4) *Meiji Pharmaceutical University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EFLK8958>

Starting time between 10:30 - 11:29

Room A

A01-3: Antenna and Propagation Measurement Techniques - Part 3

Session Chairs: Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India

Session Conveners: Tian Hong Loh, Steven Weiss, S. Chakraborty, Pedro Pinho

10:30 - 10:50

Mo-A01-AM-16-1 Compact and Flexible Tri-Band Frequency Selective Surface for ISM, WLAN, and X-Band Applications

Musa Hussain (1); Syed Muzahir Abbas (2); Wahaj Abbas Awan (3)
(1) Griffith University (Australia); (2) Macquarie University (Australia); (3) Gachon University (South Korea)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WDLD4677>

10:50 - 11:10

Mo-A01-AM-16-2 Theoretical Investigation of Resonant Interaction and Frequency Evolution in AMC-Loaded Patch Antennas (Invited)

Sudipta Chattopadhyay (1); Vishakha Yadav (1); Manoj Sarkar (1); Abhijyoti Ghosh (1); S. Chakraborty (2)

(1) Mizoram University (India); (2) CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DTIH8608>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/gjYc7cop4W38bs5>

Room B1

B13-1: Scattering of waves by particles: new applications from radio waves to optics - Part 1

Session Chairs: Mariana Dalarsson, KTH, Sweden; Samel Arslanagic, Technical University of Denmark, Denmark

Session Conveners: Mariana Dalarsson, Samel Arslanagic

10:30 - 10:50

Mo-B13-AM-16-1 Absorption paradox in spherical scattering (Invited)

Ari Sihvola (1)
(1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZGGX8891>

10:50 - 11:10

Mo-B13-AM-16-2 Direction-dependent geometric phase for plane-wave scattering by coated spheres: towards morphological insights

Tom Mackay (1); Akhlesh Lakhtakia (2); Hector Iga-Buitron (3)
(1) University of Edinburgh (United Kingdom); (2) The Pennsylvania State University (United States); (3) The University of Edinburgh (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AJFX9470>

11:10 - 11:30

Mo-B13-AM-16-3 Enhanced Scattering Through All-Dielectric Cylindrical Impedance Surface (Invited)

Rasmus E. Jacobsen (1); Samel Arslanagic (1)
(1) Technical University of Denmark (Denmark)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KPGY9626>

Room B2

B11: Electromagnetic methods for direct and inverse scattering involving stratified media

Session Chairs: [Andrea Randazzo, University of Genoa, Italy](#); [Cristina Ponti, Roma Tre University, Italy](#)

Session Conveners: [Giuseppe Schettini, Andrea Randazzo, Cristina Ponti](#)

10:30 - 10:50

Mo-B11-AM-16-1 Clutter-mitigated microwave detection of inclusions in pillar structures

Antonio Cuccaro (1); Alessandro Fedeli (2); Mohammad Omki (2); Cristina Ponti (3); Emanuela Proietti (4); Andrea Randazzo (2); Raffaele Solimene (1)

(1) University of Campania "Luigi Vanvitelli" (Italy); (2) University of Genoa (Italy); (3) Roma Tre University (Italy); (4) Institute for Microelectronics and Microsystems, National Research Council of Italy (Italy); (2) University of Genoa (Italy); (1) University of Campania "Luigi Vanvitelli" (Italy)

[Link to paper: https://doi.org/10.46620/URSIGASS26/APDZ9873](https://doi.org/10.46620/URSIGASS26/APDZ9873)

10:50 - 11:10

Mo-B11-AM-16-2 Assessment of a Multi-Link Machine-Learning Approach for Rainfall Classification using Satellite Microwave Links with Missing Data

Ftouni Mostafa (1); Margherita Spalla (2); Matteo Colli (2); Christian Gianoglio (1); Andrea Randazzo (1)

(1) University of Genoa (Italy); (2) Darts Engineering (Italy); (1) University of Genoa (Italy)

[Link to paper: https://doi.org/10.46620/URSIGASS26/HORB5443](https://doi.org/10.46620/URSIGASS26/HORB5443)

Room C

C05-1: Artificial Intelligence for Communications - Part 1

Session Chairs: [Krzysztof Cwalina, Gdansk University of Technology, Poland](#); [Kumar Vijay Mishra, University of Maryland, United States](#)

Session Conveners: [Krzysztof Cwalina, Kumar Vijay Mishra](#)

10:30 - 10:50

Mo-C05-AM-16-1 Integration of AI tools into OFDMA radio-link control

Tomas Palenik (1); Viktor Sztikay (1); Martin Rakus (1)

(1) Slovak University of Technology (Slovakia)

[Link to paper: https://doi.org/10.46620/URSIGASS26/WJMR3562](https://doi.org/10.46620/URSIGASS26/WJMR3562)

10:50 - 11:10

Mo-C05-AM-16-2 Logic-Only, On-Line Fine Tuning and Real-Time Inference of Self-Organizing Map for Source Localization

Loïc Thomas (1, 2); Gaël Loubet (1, 3); Gabriela Nicolescu (4); Daniela Dragomirescu (1, 3)

(1) LAAS-CNRS (France); (2) Université de Toulouse (France); (1) LAAS-CNRS (France); (3) INSA Toulouse (France); (4) Ecole Polytechnique Montréal (Canada)

[Link to paper: https://doi.org/10.46620/URSIGASS26/YCHV2547](https://doi.org/10.46620/URSIGASS26/YCHV2547)

11:10 - 11:30

Mo-C05-AM-16-3 An Early Warning System based on IoT-AI Framework for Wildlife Monitoring and Conservation

Lakshya Rasaprolu (1)

(1) Indian Institution of Technology Indore (India)

[Link to paper: https://doi.org/10.46620/URSIGASS26/RWAU8764](https://doi.org/10.46620/URSIGASS26/RWAU8764)

Room D

D05-3: Electronic and photonic components for THz systems - Part 3

Session Chairs: Otsuji Taiichi, Center of Excellence ENSEMBLE3 Ltd., Poland; Wojciech Knap, Warsaw University of Technology, Poland

Session Conveners: Taiichi Otsuji, Wojciech Knap

10:30 - 10:50

Mo-D05-AM-16-1 Towards Terahertz Generation and Amplification in Plasmonic Crystals Working in Linear and Nonlinear Regimes (Invited)

Pavlo Sai (1); Maksym Dub (1); Vadym Korotyeyev (2); Martin Mittendorff (3); Wojciech Knap (1)

(1) Warsaw University of Technology (Poland); (2) V. Ye. Lashkaryov Institute of Semiconductor Physics (Ukraine); (3) Universität Duisburg-Essen (Germany); (1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SSSU5186>

10:50 - 11:10

Mo-D05-AM-16-2 Zero bias ultrafast THz detection based on Dirac semimetals and their heterostructures (Invited)

Chao Tang (1); Aoi Hamada (1); Hiroyoshi Kudo (1); Victor Ryzhii (1); Yuma Takida (2); Hiroaki Minamide (2); Tsung-Tse Lin (1); Akira Satou (1); Otsuji Taiichi (3)

(1) Tohoku University (Japan); (2) RIKEN (Japan); (1) Tohoku University (Japan); (3) Center of Excellence ENSEMBLE3 Ltd. (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LVJR5213>

Room E

EFGJ: Machine Learning and Signal Processing to Analyze and Mitigate EMI and RFI

Session Chairs: Paolo de Matthaeis, University of Maryland Baltimore County, United States; Riccardo Trinchero, Politecnico di Torino, Italy

Session Conveners: Kaushal Buch, Virginie Deniau, Paolo de Matthaeis, Riccardo Trinchero, Kevin Vinsen

10:30 - 10:50

Mo-EFGJ-AM-16-1 A Robust Machine Learning Based Radio Frequency Interference Detection Algorithm for Microwave Radiometry

Mustafa Aksoy (1); Lennox Apudo (1); Sidharth Misra (2); Joel T. Johnson (3); Mark Andrews (3); Priscilla Mohammed (4); Roger Oliva (5)

(1) University at Albany, SUNY (United States); (2) Jet Propulsion Laboratory, California Institute of Technology (United States); (3) The Ohio State University (United States); (4) NASA Goddard Space Flight Center (United States); (5) Noctua Technologies LLC (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EQXR9762>

10:50 - 11:10

Mo-EFGJ-AM-16-2 CJS-Net: A Composite Jamming Suppression Network for SAR

Xiaoyu Xu (1); Yutong Zhu (1); Weiwei Fan (1); Feng Zhou (1)

(1) Xidian University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PKSS3615>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/pRra3B5c3EPNydx>

11:10 - 11:30

Mo-EFGJ-AM-16-3 Trajectory-based RFI Subtraction: First Application to Real EDA2 Data

Chris Finlay (1); Bruce Bassett (2); Dylan Grigg (3); Martin Kunz (4); Nadeem Oozeer (5); Steven Tingay (3); Emma Tolley (1)

(1) Ecole Polytechnique Federale de Lausanne (Switzerland); (2) University of Witwatersrand (South Africa); (3) Curtin University (Australia); (4) University of Geneva

(Switzerland); (5) SARA0 (South Africa); (3) Curtin University (Australia); (1) Ecole Polytechnique Federale de Lausanne (Switzerland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/DPSD4545>

Room F

F12: Open Session on Radio Waves Propagation

Session Chairs: *Slawomir Ambroziak, Gdańsk University of Technology, Poland*

Session Conveners: *Slawomir Ambroziak*

10:30 - 10:50

Mo-F12-AM-16-1 Path Loss Measurements at 15 GHz in a Train Carriage with Compartments

Krzysztof Cichoń (1); Piotr Górniak (1); Enrico Maria Vitucci (2)
(1) Poznan University of Technology (Poland); (2) University of Bologna (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/BXGY7651>

10:50 - 11:10

Mo-F12-AM-16-2 The Influence of Atmospheric Phenomena on the Link Budget of Sub-Terahertz 6G Systems Under Diverse Geographical Conditions

Sławomir Hausman (1); Piotr Korbel (1)
(1) Lodz University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AUKH7605>

11:10 - 11:30

Mo-F12-AM-16-3 Optimization of Rain-Induced Depolarization in Dual-Polarization Millimeter-Wave Wireless Links

Harel Marom (1); Yosef Pinhasi (1)
(1) Ariel University (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PFWL9698>

Room G2

G01-1: Novel radio instruments and techniques for Space Weather model validation and assimilation - Part 1

Session Chairs: *David Themens, University of Birmingham, United Kingdom; Christina Arras, TU Berlin, Germany*

Session Conveners: *David Themens, Christina Arras, Grzegorz Nykiel, Jack Brown*

10:30 - 10:50

Mo-G01-AM-16-1 Advances in GNSS Radio Occultation Characterization of E-Region Irregularities (Invited)

Daniel Emmons (1); Joseph Ellis (2); Morris Cohen (2); Sharjeel Hyder (1); Kyle Fitch (1); Jeffrey Holmes (3); Kyle Roberts (1); Dong Wu (4); Cornelius C. J. H. Salinas (4); Nimalan Swarnalingam (4); David Themens (5)
(1) Air Force Institute of Technology (United States); (2) Georgia Institute of Technology (United States); (1) Air Force Institute of Technology (United States); (3) Air Force Research Lab (United States); (1) Air Force Institute of Technology (United States); (4) NASA Goddard Space Flight Center (United States); (5) University of Birmingham (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NEIB1950>

10:50 - 11:10

Mo-G01-AM-16-2 Using Compact Intracloud Discharge Lightning for HF Ionospheric Sounding

Kenneth Obenberger (1); Nikhil Pailoor (2); Yanan Zhu (3); Jeffrey Lapierre (3); Erin Lay (4); Eugene Dao (1)

(1) Air Force Research Lab (United States); (2) Space Dynamics Laboratory (United States); (3) Earth Networks (United States); (4) Los Alamos National Laboratory (United States); (1) Air Force Research Lab (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LCFW4517>

11:10 - 11:30

Mo-G01-AM-16-3 Toward High Spatiotemporal-Resolution VLF Remote Sensing of the D-Region

Hunter Burch (1); Benjamin Smith (1); William Simpson (1); Mason Matrazzo (1); Spencer Plep (1)

(1) Auburn University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KUVD5820>

Room H

H02-3: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 3

Session Chairs: David Hartley, University of Iowa, United States; Ondrej Santolik, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic

Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

10:30 - 10:50

Mo-H02-AM-16-1 Empirical wave power model of whistler-mode chorus waves derived from the long-term Arase observation

Satoshi Kurita (1); Yoshizumi Miyoshi (2); Yuto Katoh (3); Shinji Saito (4); Shoya Matsuda (5); Yoshiya Kasahara (5); Ayako Matsuoka (1); Mariko Teramoto (6); Tomoaki Hori (2); Atsuki Shinbori (2); Kazuhiro Yamamoto (2); Iku Shinohara (7)

(1) Kyoto University (Japan); (2) Nagoya University (Japan); (3) Tohoku University (Japan); (4) National Institute of Information and Communications Technology (Japan); (5) Kanazawa University (Japan); (1) Kyoto University (Japan); (6) Kyushu Institute of Technology (Japan); (2) Nagoya University (Japan); (7) Japan Aerospace Exploration Agency (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UQNV2132>

10:50 - 11:10

Mo-H02-AM-16-2 Temporal Correlations of Chorus Waves and Their Impact on Uncertainty in Global Wave Models

Miroslav Hanzelka (1); Ondřej Santolík (1, 2); Alwin Roy (3, 4); Dedong Wang (3); Clare Watt (5)

(1) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (2) Charles University, Faculty of Mathematics and Physics (Czech Republic); (3) GFZ Helmholtz Centre for Geosciences (Germany); (4) Institute of Physics and Astronomy, University of Potsdam (Germany); (5) Northumbria University (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ILCX8194>

11:10 - 11:30

Mo-H02-AM-16-3 Applying Sensitivity Analysis Techniques to Global Nonlinear Whistler Mode Chorus Metrics

Adam Toulson (1); Daniel Ratliff (1); Clare Watt (1); Emily Grant (1)

(1) Northumbria University (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XBPJ8182>

Room J1

J01-1: New telescopes and major upgrades to existing facilities - Part 1

Session Chairs: François Kapp, Caltech, United States; Maria Grazia Labate, Istituto Nazionale di Astrofisica (INAF), Italy

Session Conveners: Francois Kapp, Douglas Bock, Maria Grazia Labate

10:30 - 10:50

Mo-J01-AM-16-1 The SKA Observatory: Update on Construction and Progress toward Science Verification (Invited)

Naomi McClure-Griffiths (1); Betsey Adams (2); Anna Bonaldi (1); Shari Breen (1); Jimi Green (3); George Heald (3); Maciej Serylak (1)
(1) SKA Observatory (United Kingdom); (2) SKA Observatory (South Africa); (1) SKA Observatory (United Kingdom); (3) SKA Observatory (Australia); (1) SKA Observatory (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FMYS5304>

10:50 - 11:10

Mo-J01-AM-16-2 The Architectural Upgrade of the MeerKAT Radio Telescope for 8.3–15.4 GHz Observations

Maria Grazia Labate (1); Pietro Bolli (1); Scarre Celliers (2); Kobus Cloete (2); Ugo Di Giammatteo (1); Sias Malan (2); Andrea Melis (1); Sipho Ngonyale (2); Francesco Schillirò (1); Corrado Trigilio (1); Grazia Umana (1)
(1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) SARAO (South Africa); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) SARAO (South Africa); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) SARAO (South Africa); (1) Istituto Nazionale di Astrofisica (INAF) (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FWNC4747>

11:10 - 11:30

Mo-J01-AM-16-3 The DSA: Preparing for Construction (Invited)

François Kapp (1)
(1) Caltech (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EMOU2832>

Room J2

JG-3: Mutual benefit between radio astronomy and ionospheric science - Part 3

Session Chairs: Maaijke Mevius, ASTRON, Netherlands; Rebecca Ghidoni, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Leszek Błaskiewicz, University of Warmia and Mazury in Olsztyn, Poland

Session Conveners: Maaijke Mevius, Rebecca Ghidoni, Leszek Błaskiewicz, Kasia Beser

10:30 - 10:50

Mo-JG-AM-16-1 The GNSS Ionosphere: A sensor for solar subflares real-time monitoring and potential detections of extra-solar extremely energetic sources

Manuel Hernandez-Pajares (1); Julien Poyatos (2); David Moreno-Borras (3); Octavi Fors (2); J.M. Gomez-Cama (2); Qi Liu (4); Victoria Graffigna (1); Germán Olivares-Pulido (1); David Roma-Dollase (6); Alberto Alberto García-Rigo (7); Enric Monte-Moreno (8); Heng Yang (9); Javier Ventura-Traveset (10); Raul Orus-Perez (11)
(1) IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain); (2) University of Barcelona, ICCUB (Spain); (3) Universitat Politècnica de Catalunya (Spain); (2) University of Barcelona, ICCUB (Spain); (4) Henan University (China); (5) Wuhan University (China); (1) IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain); (6) ICE/IEEC & CSIC (Spain); (7) IEEC (Spain); (8) UPC, UPC-TALP (Spain); (9) Yangtze Normal University (China); (10) ESA (France); (11) ESA (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MHSJ8944>

10:50 - 11:10

Mo-JG-AM-16-2 Impact of the ionosphere on radio source position measurements with LOFAR PL610

Mariusz Pożoga (1); Helena Ciechowska (1); Barbara Matyjasiak (1); Hanna Rothkaehl (1); Roman Wronowski (1); Dorota Przepiórka-Skup (1); Marcin Grzesiak (1); Thi Phung (1); Łukasz Tomasik (1)
(1) *Space Research Centre of the Polish Academy of Sciences (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YOEX3258>

Room K

K01 & K02: Biological and Biophysical Effects of 26 GHz Millimeter Waves: From Molecules to Cells

Session Chairs: Olga Zeni, National Research Council of Italy, Italy; Michal Cifra, Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic; Lluís M. Mir, Université Paris-Saclay, Institut Gustave Roussy, CNRS, France; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Florence Poulletier, Olga Zeni, Lars Ole Fichte, Francesca Apollonio, Michal Cifra

10:30 - 10:50

Mo-K01 & K02-AM-16-1 Stress response of human keratinocytes under a 5G-modulated 26.5 GHz RF exposure

Mariateresa Allocca (1); Anna Sannino (1); Stefania Romeo (1); Valentina Peluso (1); Maria Rosaria Scarfi (1); Fabiana Di Costanzo (1); Fulvio Schettino (2); Gaetano Chirico (2); Olga Zeni (1)
(1) *National Research Council of Italy (Italy)*; (2) *University of Cassino and Southern Lazio (Italy)*; (1) *National Research Council of Italy (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AJSO1620>

10:50 - 11:10

Mo-K01 & K02-AM-16-2 Microdosimetric Study of 26.5 GHz Millimeter Wave Exposure on a cluster of 3D Virtual HaCaT Cells

Sara Fontana (1); Noemi Dolciotti (1); Anna Sannino (2); Gianmarco Ronza (3, 2); Stefania Romeo (2); Olga Zeni (2); Francesca Apollonio (1); Micaela Liberti (1)
(1) *Sapienza University of Rome (Italy)*; (2) *Italian National Research Council (Italy)*; (3) *University of Campania "Luigi Vanvitelli" (Italy)*
Link to paper: <https://doi.org/10.46620/26-0120>

11:10 - 11:30

Mo-K01 & K02-AM-16-3 Frequency-Dependent Effects of a 26 GHz Electric Field on SOD1 Dynamics: Molecular Dynamics Simulations

Noemi Alvieri (1); Carmen Pisano (1); Paolo Marracino (2); Micaela Liberti (1); Francesca Apollonio (1)
(1) *Sapienza University of Rome (Italy)*; (2) *RISE Technology (Italy)*; (1) *Sapienza University of Rome (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZJQN1128>

Starting time between 11:30 - 12:29

Room P

GL-1: General Lecture - Part 1

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands*

11:30 - 12:30

Mo-GL-AM-22-1 GL1 : Space Very-Long-Baseline Interferometry: past, present and future (Invited)

Leonid Gurvits (1)

(1) *Delft University of Technology (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EPMI6588>

Starting time between 13:30 - 14:39

Room A

A01-4: Antenna and Propagation Measurement Techniques - Part 4

Session Chairs: *Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India*

Session Conveners: *Tian Hong Loh, Steven Weiss, S. Chakraborty, Pedro Pinho*

13:40 - 14:00

Mo-A01-PM-05-1 Evaluation of Post-Processing Effects on Fidelity and Uncertainty of Antenna Far-Field Measurements Performed in Different Controlled Environments

Vorya Waladi (1); Rafal Lech (1); Ilona Piekarz (2); Jakub Sorocki (2); Adrian Bekasiewicz (1)
(1) *Gdansk University of Technology (Poland)*; (2) *AGH University of Krakow (Poland)*; (1) *Gdansk University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UGSB5870>

14:00 - 14:20

Mo-A01-PM-05-2 All-Metal Circularly Polarized Shorted Microstrip Antenna with Non-45° Oblique Corner Perturbations for WPT Applications

Subhendu Chakraborty (1); Sohom Pal (2); Subhradeep Chakraborty (1); Debasish Pal (1); Sudipta Chattopadhyay (3); Ayan Kumar Bandyopadhyay (1)

(1) *CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)*; (2) *Department of Physics, The University of Burdwan, Burdwan (India)*; (1) *CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)*; (3) *Mizoram University (India)*; (1) *CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RZTZ8997>

Room B1

B09-3: Novel mathematical methods in electromagnetics - Part 3

Session Chairs: *Kazuya Kobayashi, Chuo University, Japan; Ben Steinberg, Tel Aviv University, Israel*

Session Conveners: *Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov*

13:40 - 14:00

Mo-B09-PM-05-1 Non-Hermitian Optics and Rest-Frame Electrodynamics of Rotating Systems (Invited)

Ben Steinberg (1); Tomer Geva (1)

(1) *Tel Aviv University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XMAG5694>

14:00 - 14:20

Mo-B09-PM-05-2 Estimation on Electromagnetic Coupling Interference Caused by Complex Multiple Interconnects

Wei-Jen Chen (1); Ruey-Beei Wu (1)

(1) National Taiwan University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RZAU9591>

14:20 - 14:40

Mo-B09-PM-05-3 Analysis of a Ring-Shaped WGM Laser with a Metal Rod

Ryotaro Sasa (1); Shota Kikuchi (1); Jun Shibayama (1)

(1) Hosei University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QOHL8961>

Room B2

B04-3: Inverse scattering and imaging - Part 3

Session Chairs: [Andrea Randazzo, University of Genoa, Italy](#); [Raffaele Solimene, Università degli Studi della Campania 'Luigi Vanvitelli', Italy](#)

Session Conveners: [Andrea Randazzo, Raffaele Solimene, Shouhei Kidera](#)

13:40 - 14:00

Mo-B04-PM-05-1 Experimental Investigations of Receiver Calibrations of Passive Radiometric Imaging System

Abdurrauf Sarul (1); İlhami Ünal (2); Ahmet Köksoy (3); Serkan Topaloğlu (4); Robert Bogdan Staszewski (2)

(1) Antsis Elektronik Sanayi ve Ticaret Ltd. „Sti. (Turkey); (2) University College Dublin (Ireland); (3) TUBITAK Marmara Research Center (Turkey); (4) Yeditepe University (Turkey); (2) University College Dublin (Ireland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MLIL5162>

14:00 - 14:20

Mo-B04-PM-05-2 A Noise-Robust and Sparsity-Enhanced Hybrid Regularization Method for Solving Electromagnetic Inverse Scattering Problems

Zupeng Liang (1); Yutong Du (1); Zicheng Liu (1)

(1) School of Electronics and Information, Northwestern Polytechnical University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CUFL7554>

14:20 - 14:40

Mo-B04-PM-05-3 Statistical Characterization of Features from Simulated Ocean SAR Data for Parameter Retrieval

Cheng-Yen Chiang (1); Kun-Shan Chen (2); Chiung-Shen Ku (1)

(1) National Taipei University of Technology (Taiwan); (2) Nanjing University (Suzhou Campus) (China); (1) National Taipei University of Technology (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TXBS7307>

Room C

C05-2: Artificial Intelligence for Communications - Part 2

Session Chairs: Krzysztof Cwalina, Gdansk University of Technology, Poland; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Krzysztof Cwalina, Kumar Vijay Mishra

13:40 - 14:00

Mo-C05-PM-05-1 Constraint-Guided Parameter-Efficient Fine-Tuning Personalized Federated Learning with Adaptive Gaussian Differential Privacy and Conformal Calibration

Somnath Bera (1); Anwesha Mukherjee (2); Debashis De (1)

(1) Maulana Abul Kalam Azad University of Technology, West Bengal (India); (2) Mahishadal Raj College (India); (1) Maulana Abul Kalam Azad University of Technology, West Bengal (India)

Link to paper: <https://doi.org/10.46620/26-0085>

Room D

D02-1: Photonic and electronic devices for automotive and industrial applications - Part 1

Session Chairs: Atsushi Kanno, Nagoya Institute of Technology, Japan; Takamitsu Aiba, Ibaraki University, Japan

Session Conveners: Atsushi Kanno, Takamitsu Aiba

13:40 - 14:00

Mo-D02-PM-05-1 Low threshold current and high-speed quantum dot laser for in-vehicle networks

Kazuki Ota (1, 2); Atsushi Kanno (2, 3); Kouichi Akahane (3)

(1) Denso Corporation (Japan); (2) Nagoya Institute of Technology (Japan); (3) National Institute of Information and Communications Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NYTU1216>

14:00 - 14:20

Mo-D02-PM-05-2 Noise-suppressing Time-domain Equalization Method for 10-Gbps Automotive Optical Fiber Communications

Lijia Liu (1); Atsushi Kanno (1)

(1) Nagoya Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FHYI5825>

14:20 - 14:40

Mo-D02-PM-05-3 Reconfigurable Analog Computer On Chip

Sara Obergassel (1); Pavol Pitonak (1); Ulmann Bernd (1); Killat Dirk (2)

(1) Anabrid GmbH (Germany); (2) Brandenburg University of Technology Cottbus–Senftenberg (BTU) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WYGF8616>

Room E

EAB-1: Wave Chaos of Complex Systems - Part 1

Session Chairs: Luca Bastianelli, National Inter-University Consortium for Telecommunications (CNIT), Italy; Riccardo Trinchero, Politecnico di Torino, Italy

Session Conveners: Steve Anlage, Luca Bastianelli, Gabriele Gradoni

13:40 - 14:00

Mo-EAB-PM-05-1 Correlation Based Analysis of Random Boundary Condition in a Reverberation Chamber (Invited)

Ali Jawad (1); Tili Paola (1); Bastianelli Luca (1, 2); De Leo Alfredo (1); Primiani Valter Mariani (1); Moglie Franco (1)
(1) Università Politecnica delle Marche (Italy); (2) Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NPFG7281>

14:00 - 14:20

Mo-EAB-PM-05-2 Wave Chaos in Electromagnetic Reverberation Chamber

Luca Bastianelli (1, 2); Emanuel Colella (2); Jawad Ali (2); Paola Tili (2); Valter Mariani Primiani (2, 1); Franco Moglie (2, 1); Gabriele Gradoni (3)
(1) CNIT (National Inter-University Consortium for Telecommunications) (Italy); (2) Università Politecnica delle Marche (Italy); (3) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ACHL9799>

14:20 - 14:40

Mo-EAB-PM-05-3 Channel Distribution in Confined Environments

Marjan Abbasi Mosleh (1); Gabriele Gradoni (1)
(1) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YCAT8552>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/zDQjLtzREoCFmAT>

Room F

F10-1: Propagation Measurement and Modelling for Complex Propagation Environment - Part 1

Session Chairs: Enrico Maria Vitucci, University of Bologna, Italy; Krzysztof Cichoń, Poznan University of Technology, Poland

Session Conveners: Enrico Maria Vitucci, Diego Dupleich, Krzysztof Cichoń

13:40 - 14:00

Mo-F10-PM-05-1 FR1(C) and FR3 bands Indoor Hallway Channel Measurements and Modelling for 6G Wireless Networks

Sana Salous (1); Jiahao Hu (1); Yubei He (1); Amar Al-Jzari (1)
(1) University of Durham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MOYP5526>

14:00 - 14:20

Mo-F10-PM-05-2 Measurement Study on Directional Properties of Indoor Sub-THz Channels at 234 GHz and 318 GHz from a Beam-Domain Perspective (Invited)

Shrayan Das (1); Naveeth Lafir (1); Nuutti Tervo (1); Pekka Kyösti (1)
(1) Centre for Wireless Communications, University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QHRF7359>

14:20 - 14:40

Mo-F10-PM-05-3 Experimental Characterization of ISAC Channel Mapping and Environment Awareness

Zhuangzhuang Cui (1); Rizqi Hersyandika (2); Haoqiu Xiong (1); Sofie Pollin (1, 3)
(1) KU Leuven (Belgium); (2) Eindhoven University of Technology (Netherlands); (3) Interuniversity Microelectronics Centre (imec) (Belgium)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LBNC1593>

Room G1

G10-1: Advances in Irregularities and Scintillation Studies - Part 1

Session Chairs: Jayachandran P. Thayyil, University of New Brunswick, Canada; Rebecca Ghidoni, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Luca Spogli, Kshitija Deshpande, P. T. Jayachandran, Daria Kotova

13:40 - 14:00

Mo-G10-PM-05-1 New Multi-Technique Scintillation Measurement Capabilities in Madrigal: Integration and Application During Extreme Geomagnetic Storms

Anthea Coster (1); Nestor Aponte (1); Katherine Cariglia (1); Theodore Beach (2); Rezy Pradipta (2); Christopher Bridgwood (2); Keith Groves (2); Endawoke Yizengaw (3); Yukitoshi Nishimura (4); Waqar Younas (4)
(1) MIT Haystack Observatory (United States); (2) Boston College (United States); (3) The Aerospace Corporation (United States); (4) Boston University (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VRJA1716>

14:00 - 14:20

Mo-G10-PM-05-2 Ionosphere and GNSS positioning response in low latitude region during severe geomagnetic storms on November 11-12, 2025

Napat Tongkasem (1); Pornchai Supnithi (1); Lin Min Min Myint (1)
(1) King Mongkut's Institute of Technology Ladkrabang (Thailand)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UZOR3382>

14:20 - 14:40

Mo-G10-PM-05-3 Detection and correction of Azimuthal Stripes from L-band Synthetic Aperture Radar over the Low-latitude region using sliding-PCA technique

Babu Sree Harsha Pasumarthi (1); Israel Hinostroza (2)
(1) German Aerospace Center (DLR) (Germany); (2) SONDRALaboratory, Centrale Supelec (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NQIZ7353>

Room G2

G01-2: Novel radio instruments and techniques for Space Weather model validation and assimilation - Part 2

Session Chairs: David Themens, University of Birmingham, United Kingdom; Grzegorz Nykiel, German Aerospace Center (DLR e.V.), Germany

Session Conveners: David Themens, Christina Arras, Grzegorz Nykiel, Jack Brown

13:40 - 14:00

Mo-G01-PM-05-1 Measurement-driven background models for Kalman filter ionospheric imaging using generalised additive models

Johannes Norberg (1)
(1) Finnish Meteorological Institute (Finland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PTEL4499>

14:00 - 14:20

Mo-G01-PM-05-2 Optimising AENeAS: Enhancing the UK's Operational Model for Space Weather Forecasting

Jack Brown (1); David Themens (1); Sean Elvidge (1); Matthew Brown (1)

(1) *University of Birmingham (United Kingdom)*

Link to paper: <https://doi.org/10.46620/26-0002>

14:20 - 14:40

Mo-G01-PM-05-3 Ionospheric Delay Estimation at Grazing Angles Using Spaceborne GNSS Reflectometry from the PRETTY Mission

Mario Moreno (1); Maximilian Semmling (1); Florian Zus (2); Georges Stienne (3); Andreas Dielacher (4); Mainul Hoque (1); Jens Wickert (2, 5); Hossein Nahavandchi (6)

(1) *German Aerospace Center (DLR) (Germany)*; (2) *GFZ German Research Centre for Geosciences (Germany)*; (3) *Université Littoral Côte d'Opale (France)*; (4) *Beyond Gravity Austria (Austria)*; (5) *Technische Universität Berlin (Germany)*; (6) *Norwegian University of Science and Technology - NTNU (Norway)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZZTV8270>

Room H

H02-4: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 4

Session Chairs: David Hartley, *University of Iowa, United States*; Ondrej Santolik, *Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic*

Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

13:40 - 14:00

Mo-H02-PM-05-1 When, Where and How do Non-Gaussian Whistler-Mode Chorus Wave Spectra Emerge in Earth's Radiation Belts?

Daniel Ratliff (1); Oliver Allanson (2); Julia Stawarz (1); Dovile Rasinkaite (1); Clare Watt (1); Suman Chakraborty (1)

(1) *Northumbria University (United Kingdom)*; (2) *University of Birmingham (United Kingdom)*; (1) *Northumbria University (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FNYX4774>

14:00 - 14:20

Mo-H02-PM-05-2 The effect of isolated substorms on whistler-mode waves in the magnetospheric plasma trough

Clare Watt (1); Craig Rodger (2); Nigel Meredith (3); Jin-Mann Wong (4); Emily Grant (1); Jonathan Rae (1); Rachel Black (5, 3); Oliver Allanson (6); Colin Forsyth (7)

(1) *Northumbria University (United Kingdom)*; (2) *University of Otago (New Zealand)*; (3) *British Antarctic Survey (United Kingdom)*; (4) *European Centre for Medium Range Weather Forecasting (United Kingdom)*; (5) *University of Exeter (United Kingdom)*; (6) *University of Birmingham (United Kingdom)*; (7) *University College London (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CCQW4318>

14:20 - 14:40

Mo-H02-PM-05-3 Energetics of Whistler Mode Hiss in the Equatorial Region of the Magnetosphere

Ondrej Santolik (1)

(1) *Department of Space Physics, Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RDMR8817>

Room J1

J01-2: New telescopes and major upgrades to existing facilities - Part 2

Session Chairs: François Kapp, Caltech, United States; Maria Grazia Labate, Istituto Nazionale di Astrofisica (INAF), Italy

Session Conveners: Francois Kapp, Douglas Bock, Maria Grazia Labate

13:40 - 14:00

Mo-J01-PM-05-1 The Lausitz Radio Array

Michael Rugel (1)

(1) Deutsches Zentrum für Astrophysik (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ANTP3206>

14:00 - 14:20

Mo-J01-PM-05-2 Real-time Science at the Upgraded Allen Telescope Array

Joe Bright (1); Alexander Pollak (2); Luigi Cruz (2); Andrew Siemion (2)

(1) Physics Department, University of Oxford (United Kingdom); (2) SETI Institute (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZJDN9147>

14:20 - 14:40

Mo-J01-PM-05-3 ALMA2040 - Towards a next-generation sub-mm facility

Gie Han Tan (1); Andrei M. Barychev (2); María Díaz Trigo (3); Stefano Facchini (4); Jacqueline Hodge (5); Peter G. Huggard (6); Elizabeth Humphreys (3); Gergö Popping (3); Eva Schinnerer (7); Martina Wiedner (8)

(1) Eindhoven University of Technology (Netherlands); (2) University of Groningen (Netherlands); (3) European Southern Observatory (Germany); (4) University of Milan (Italy); (5) Leiden University (Netherlands); (6) Rutherford Appleton Laboratory (United Kingdom); (3) European Southern Observatory (Germany); (7) Max Planck Institute for Astronomy (Germany); (8) Observatoire de Paris-PSL (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JVID3526>

Room J2

J02-1: VLBI - Part 1

Session Chairs: Agnieszka Slowikowska, Joint Institute for VLBI ERIC, Netherlands; Anna Bartkiewicz, Institute of Astronomy, Nicolaus Copernicus University, Poland; Mohamed Darwish, National Research Institute of Astronomy and Geophysics, Egypt

Session Conveners: Agnieszka Slowikowska, Anna Bartkiewicz, Mohamed Darwish

14:00 - 14:20

Mo-J02-PM-05-2 Beyond S/X: Source Variability Metrics from K-band Time Series

Phil Cigan (1); David Gordon (1)

(1) U.S. Naval Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VXON2368>

14:20 - 14:40

Mo-J02-PM-05-3 Probing the Cores of Giant Radio Galaxies with LOFAR-VLBI

Sagar Sethi (1); Aleksandra Wolowska (1); Andrzej Krankowski (1); Marek Jamroz (2); Pratik Dabhade (3); Blaszkiewicz Leszek (1)

(1) University of Warmia and Mazury in Olsztyn (Poland); (2) Jagiellonian University in Kraków (Poland); (3) Narodowe Centrum Badań Jądrowych (Poland); (1) University of Warmia and Mazury in Olsztyn (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SCCM2373>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/4JELiXwxBfA49LW>

Room K

K03-1: Electromagnetic Stimulation and Monitoring at the Cellular and Tissue Levels - Part 1

Session Chairs: Lluís M. Mir, *Université Paris-Saclay, Institut Gustave Roussy, CNRS, France*; Michal Cifra, *Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic*; Francesca Apollonio, *Sapienza University of Rome, Italy*

Session Conveners: Lluís M Mir, Michal Cifra, Francesca Apollonio

13:40 - 14:00

Mo-K03-PM-05-1 Extracting the Size and Refractive Index of Viable/non-viable CHO Cells Using Lens-Free Imaging with DEP Labeling and Bayesian Inference

Behnam Arzhang (1); Emerich Kovacs (1); Justyna Lee (1); Elham Salimi (1); Douglas Thomson (1); Greg Bridges (1)
(1) *University of Manitoba (Canada)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/ROGX6887](https://doi.org/10.46620/URSIGASS26/ROGX6887)

14:00 - 14:20

Mo-K03-PM-05-2 Sensitivity Analysis of Single-Cell Electrical Impedance Spectroscopy for Mammalian Cell Bioprocess Monitoring (Invited)

Elham Salimi (1); Sara Absalan (1); Douglas Thomson (1); Greg Bridges (1)
(1) *University of Manitoba (Canada)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/JDZJ7920](https://doi.org/10.46620/URSIGASS26/JDZJ7920)

14:20 - 14:40

Mo-K03-PM-05-3 Custom microelectrodes delivery system for nsPEF cell electroporation

Nina Van (1); Michard Lionel (2); Nina Reitano Ferber (1); Gilles N'Kaoua (1); Florence Poulletier de Gannes (1); Delia Arnaud-Cormos (2, 3); Yann Percherancier (1); Isabelle Lagroye (1, 4); Philippe Leveque (2); Noelle Lewis (1); Rosa Orlacchio (1, 4)
(1) *IMS Laboratory - Bordeaux University, CNRS (France)*; (2) *XLIM, Univ. Limoges, CNRS (France)*; (3) *Institut Universitaire de France (IUF) (France)*; (4) *École Pratique des Hautes Études (EPHE), PSL Research University (France)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/DELA6224](https://doi.org/10.46620/URSIGASS26/DELA6224)

Room P

SPC-2: SPC Special Session - Part 2

Session Chairs: Sembiam R. Rengarajan, *California State University (YSA), SPC Chair*

13:40 - 14:00

Mo-SPC-PM-05-1 A Study on Injection Efficiency Estimation Method toward Countermeasures Against IEMI Attacks on Security Circuits

Koki Abe (1); Daisuke Fujimoto (1); Yuichi Hayashi (1)
(1) *Nara Institute of Science and Technology (Japan)*

[Link to paper: Not available](#)

14:00 - 14:20

Mo-SPC-PM-05-2 Mapping Polarimetric Characteristics of Radio Frequency Interference in L-Band Synthetic Aperture Radar Data

Yu Hashimoto (1); Ryu Sugimoto (2); Akira Hirose (1); Ryo Natsuaki (1)
(1) *The University of Tokyo (Japan)*; (2) *National Institute of Advanced Industrial Science and Technology (Japan)*; (1) *The University of Tokyo (Japan)*

[Link to paper: Not available](#)

14:20 - 14:40

- Mo-SPC-PM-05-3 Potential of full-wave methods for simulating lightning generated whistlers**
Kateřina Rosická (1, 2); Ondřej Santolík (1, 2)
(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (2) *Charles University (Czech Republic)*
[Link to paper: Not available](#)

14:40 - 15:00

- Mo-SPC-PM-05-4 Correlation length of solar wind turbulence and the onset of inertial range: observations and synthetic data**
Ilyas Abushzada (1); Alexander Pitňa (1); Jana Šafránková (1); Zdeněk Němeček (1)
(1) *Charles University, Faculty of Mathematics and Physics (Czech Republic)*
[Link to paper: Not available](#)

15:00 - 15:20

- Mo-SPC-PM-05-5 Comparing Quad Band Uniaxial and 5G Triaxial RF-EMF Exposure Sensors at 3.5 GHz**
Jeroen Van der Straeten (1, 2); Han Van Bladel (1, 2); Kenneth Deprez (1, 2); Wout Joseph (1, 2); Günter Vermeeren (1, 2)
(1) *Ghent University (Belgium)*; (2) *Interuniversity Microelectronics Centre (imec) (Belgium)*
[Link to paper: Not available](#)

Starting time between 13:30 - 14:39

Room C

C02: 6G and future wireless systems

Session Chairs: Satoshi Tsukamoto, Tohoku University, Japan; Alberto Tarable, National Research Council, Italy

Session Conveners: Satoshi Tsukamoto, Alberto Tarable

14:00 - 14:20

- Mo-C02-PM-07-1 Performance of MIMO Demodulation Algorithm Employing Augmented Antennas and Steepest Descent Random Walk for Information Signals Superimposed with Artificial Noise**
Yukitoshi Sanada (1)
(1) *Keio University (Japan)*
[Link to paper: https://doi.org/10.46620/URSIGASS26/PQXI5884](https://doi.org/10.46620/URSIGASS26/PQXI5884)

14:20 - 14:40

- Mo-C02-PM-07-2 Learning Tri-Beamforming for Pinching Antenna Assisted Low-Altitude Wireless Networks**
Jia Guo (1)
(1) *Queen Mary University of London (United Kingdom)*
[Link to paper: https://doi.org/10.46620/URSIGASS26/RSKW8380](https://doi.org/10.46620/URSIGASS26/RSKW8380)

14:40 - 15:00

- Mo-C02-PM-07-3 Prototyping of Q/V-band Full-Digital Beamforming Antenna System for LEO Satellites Using Optical Fiber Link with Bandpass Delta-Sigma Modulation**
Satoshi Tsukamoto (1); Tomoyuki Furuichi (1); Noriharu Suematsu (1)
(1) *Tohoku University (Japan)*
[Link to paper: https://doi.org/10.46620/URSIGASS26/OIYP9214](https://doi.org/10.46620/URSIGASS26/OIYP9214)

15:00 - 15:20

Mo-C02-PM-07-4 A Brick Type Q-band 4-Element Circularly Polarized Array Antenna Using Combined Substrate-Integrated Waveguide and Dipole

Noriharu Suematsu (1)

(1) Tohoku University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GGXL4744>

Starting time between 14:40 - 15:39

Room B1

B09-4: Novel mathematical methods in electromagnetics - Part 4

Session Chairs: Kazuya Kobayashi, Chuo University, Japan; Ben Steinberg, Tel Aviv University, Israel

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

14:40 - 15:00

Mo-B09-PM-11-1 Review of PASTD with the Inclusions of Targets Shaped in Recent Coordinate Systems as Surfaces Including Inflection, Torsion, and Singularities: Scattering from Single Point Discontinuities in 3D Environments (Invited)

Taner Şengör (1)

(1) Yildiz Technical University (Retired) (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UEOT9405>

Room B2

B04-4: Inverse scattering and imaging - Part 4

Session Chairs: Andrea Randazzo, University of Genoa, Italy; Raffaele Solimene, Università degli Studi della Campania 'Luigi Vanvitelli', Italy

Session Conveners: Andrea Randazzo, Raffaele Solimene, Shouhei Kidera

14:40 - 15:00

Mo-B04-PM-11-1 MESOM-Net: A Multi-frequency Information Enhanced Network Architecture for Inverse Scattering

Haonan Wang (1); Zupeng Liang (1); Yutong Du (1); Zicheng Liu (1)

(1) School of Electronics and Information, Northwestern Polytechnical University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SRMQ9282>

15:00 - 15:20

Mo-B04-PM-11-2 Mono-static vs. Bi-static Millimeter-Wave Near-Field Imaging using Space-Frequency Time Reversal Multiple Signal Classification

Chiungshen Ku (1); Chengyen Chiang (1); Yanglang Chang (1)

(1) National Taipei University of Technology (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WKUP4631>

Room D

D02-2: Photonic and electronic devices for automotive and industrial applications - Part 2

Session Chairs: Atsushi Kanno, Nagoya Institute of Technology, Japan; Takamitsu Aiba, Ibaraki University, Japan

Session Conveners: Atsushi Kanno, Takamitsu Aiba

14:40 - 15:00

Mo-D02-PM-11-1 Encircled Flux Evaluation of Multimode Optical Fiber Transmission Under Vibrational Conditions for Automotive Applications

Ryotaro Yamashita (1)

(1) Nagoya Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RWCI2597>

15:00 - 15:20

Mo-D02-PM-11-2 Operation speed enhancement for an interrogator using multi-channel spectrometers in FBG sensing for industrial applications (Invited)

Tsuyoshi Konishi (1); Syuta Azu (1); Rio Asada (1); Asato Yamamoto (1)
(1) *Waseda University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QQQC7974>

Room E

EAB-2: Wave Chaos of Complex Systems - Part 2

Session Chairs: Luca Bastianelli, National Inter-University Consortium for Telecommunications (CNIT), Italy; Riccardo Trincherio, Politecnico di Torino, Italy

Session Conveners: Steve Anlage, Luca Bastianelli, Gabriele Gradoni

14:40 - 15:00

Mo-EAB-PM-11-1 Statistical Characterization of a Reverberation Chamber Loaded with a Realistic Device

Paola Tili (1); Jawad Ali (1); Luca Bastianelli (1, 2); Alfredo De Leo (1); Franco Moglie (1); Valter Mariani Primiani (1)

(1) *Università Politecnica delle Marche (Italy)*; (2) *Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TLJE6826>

Room F

F10-2: Propagation Measurement and Modelling for Complex Propagation Environment - Part 2

Session Chairs: Enrico Maria Vitucci, University of Bologna, Italy; Krzysztof Cichon, Poznan University of Technology, Poland

Session Conveners: Enrico Maria Vitucci, Diego Dupleich, Krzysztof Cichon

14:40 - 15:00

Mo-F10-PM-11-1 Shadow Fading Correlation of Urban Macrocellular Mobile Channels at 6.75 and 15 GHz (Invited)

Juha Tuomela (1); Katsuyuki Haneda (1)

(1) *Aalto University (Finland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BPCZ1931>

15:00 - 15:20

Mo-F10-PM-11-2 Large-Scale Analysis and Blockage-Aware Modeling in Vegetative Environments at 18 GHz

Melissa Diago-Mosquera (1); José-Manuel Poyanco (1)

(1) *Universidad Técnica Federico Santa María (Chile)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KIXN6574>

Room G1

G10-2: Advances in Irregularities and Scintillation Studies - Part 2

Session Chairs: Jayachandran P. Thayyil, University of New Brunswick, Canada; Rebecca Ghidoni, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Luca Spogli, Kshitija Deshpande, P. T. Jayachandran, Daria Kotova

14:40 - 15:00

Mo-G10-PM-11-1 Geolocation of ionospheric irregularities based on MSS-1 high-rate radio occultation measurements

Mengjie Wu (1); Zhen Zeng (2); Peng Guo (1)
(1) Shanghai Astronomical Observatory, Chinese Academy of Sciences (China); (2) University Corporation for Atmospheric Research (United States); (1) Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/26-0074>

15:00 - 15:20

Mo-G10-PM-11-2 Signal Data Stream Parameters Passing Atmospheric and Ionospheric Environments in Land-Satellite Communication Links with Fading caused by Natural Phenomena

Irina Bronfman (1); Yehuda Ben-Shimol (1); Nathan Blaunstein (1)
(1) Ben Gurion University of the Negev (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VLVF7577>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/CsA4XfRw42ZaY2L>

Room G2

G01-3: Novel radio instruments and techniques for Space Weather model validation and assimilation - Part 3

Session Chairs: David Themens, University of Birmingham, United Kingdom; Jack Brown, University of Birmingham, United Kingdom

Session Conveners: David Themens, Christina Arras, Grzegorz Nykiel, Jack Brown

14:40 - 15:00

Mo-G01-PM-11-1 Bridging the gap between the Earth's ionosphere and plasmasphere (Invited)

Artem Smirnov (1, 2); Yuri Shprits (1); Hermann Lühr (1); Elena Kronberg (2); Jerry Goldstein (3); Yoshizumi Miyoshi (4); Fabricio Prol (5); Alessio Pignalberi (6); Natalia Buzulukova (7); Nicholas Pedatella (8); Arase Team (4)
(1) GFZ German Research Centre for Geosciences (Germany); (2) Ludwig Maximilian University of Munich (Germany); (3) Southwest Research Institute (United States); (4) Nagoya University (Japan); (5) Finnish Geospatial Research Institute (Finland); (6) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (7) NASA Goddard Space Flight Center (United States); (8) University Corporation for Atmospheric Research (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/RMNT3218>

15:00 - 15:20

Mo-G01-PM-11-2 An Assimilative Vary-Chap Model for the Topside Ionosphere Electron Density

Giorgio Arlan Da Silva Picanço (1); Ivan Galkin (1); Fabricio Prol (2); Ana Christovam (3); Marcio Muella (3); Laysa Resende (4); Sophia Laranja (4)
(1) University of Massachusetts (United States); (2) Finnish Geospatial Research Institute (Finland); (3) Universidade do Vale do Paraíba (Brazil); (4) National Institute for Space Research (Brazil)
Link to paper: <https://doi.org/10.46620/26-0087>

Room H

H02-5: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 5

Session Chairs: Ondrej Santolik, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic; Yoshizumi Miyoshi, Nagoya University, Japan

Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

14:40 - 15:00

Mo-H02-PM-11-1 Whistler-Mode Waves Observed by TRACERS: Polarization, Propagation, and Inferred Plasma Conditions

David Hartley (1); George Hospodarsky (1); Ivar Christopher (1); John Bonnell (2); Roger Roglans (2); Ondrej Santolik (3, 4); Robert Strangeway (5)
(1) University of Iowa (United States); (2) University of California (United States); (3) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (4) Charles University (Czech Republic); (5) UCLA (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VYEE8999>

15:00 - 15:20

Mo-H02-PM-11-2 Lightning Whistler Identification and Parameters in DEMETER and Van Allen Probes Data

Václav Linzmayer (1); František Němec (1); Ondřej Santolík (2, 1); Ivana Kolmašová (2, 1)
(1) Charles University (Czech Republic); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QRIT6017>

Room J1

J01-3: New telescopes and major upgrades to existing facilities - Part 3

Session Chairs: François Kapp, Caltech, United States; Maria Grazia Labate, Istituto Nazionale di Astrofisica (INAF), Italy

Session Conveners: Francois Kapp, Douglas Bock, Maria Grazia Labate

14:40 - 15:00

Mo-J01-PM-11-1 The Africa Millimetre Telescope

Michael Janssen (1)
(1) Radboud University (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BTLH9586>

15:00 - 15:20

Mo-J01-PM-11-2 LOFAR2.0 Commissioning update

Michiel A. Brentjens (1)
(1) ASTRON (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LJGW7386>

Room J2

J02-2: VLBI - Part 2

Session Chairs: Agnieszka Slowikowska, Joint Institute for VLBI ERIC, Netherlands; Anna Bartkiewicz, Institute of Astronomy, Nicolaus Copernicus University, Poland; Mohamed Darwish, National Research Institute of Astronomy and Geophysics, Egypt

Session Conveners: Agnieszka Slowikowska, Anna Bartkiewicz, Mohamed Darwish

14:40 - 15:00

Mo-J02-PM-11-1 Update on the Long Baselines of the Next-generation Very Large Array

Lucas Hunt (1); Walter Briskeen (1); Eric Murphy (1); Rob Selina (1); William Hojnowski (1)
(1) National Radio Astronomy Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HMDP7888>

15:00 - 15:20

Mo-J02-PM-11-2 First Spectral Line VLBI Observations at λ 1.3 mm: Exploring the $28\text{SiO } v = 1, J = 5$ – 4 Line in a Sample of Evolved Stars with the EHT and ALMA

Lynn D. Matthews (1)

(1) *Massachusetts Institute of Technology Haystack Observatory (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/LFON6940>

Room K

K01 & K03-2: Biological Effects and Electromagnetic Modulation in Living Systems - Part 2

Session Chairs: Olga Zeni, *National Research Council of Italy, Italy*; Michal Cifra, *Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic*; Lluís M. Mir, *Université Paris-Saclay, Institut Gustave Roussy, CNRS, France*; Francesca Apollonio, *Sapienza University of Rome, Italy*

Session Conveners: Florence Poulletier, Olga Zeni, Lars Ole Fichte, Lluís Mir, Michal Cifra, Francesca Apollonio

15:00 - 15:20

Mo-K01 & K03-PM-11-2 Image-Based Estimation of Dielectric Properties in Inflamed Cartilage Using AI-Guided Segmentation and Finite-Element Modelling

Lam Vien Che (1); Peng Ying (2); Nguyen Julie (2); X. Lucas Lu (2); Ursula Van Rienen (1); Simon Adrian (1); Julius Zimmermann (1)

(1) *Universität Rostock (Germany)*; (2) *University of Delaware (United States)*; (1) *Universität Rostock (Germany)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/R RCS8235>

Starting time between 15:40 - 16:39

Room A

A02-1: Measurements in Telecommunications and Advanced Communication Systems - Part 1

Session Chairs: Tian Hong Loh, *National Physical Laboratory, United Kingdom*; Ricardo Figueiredo, *Instituto de Telecomunicações, Portugal*

Session Conveners: Tian Hong Loh, Nuno Carvalho, Ricardo Figueiredo

15:40 - 16:00

Mo-A02-PM-17-1 HIL Testing Framework for 5G NR V2X in Heterogeneous Environments (Invited)

Haowen Wang (1, 2); Yuhan Tian (1, 2); Fangze Tu (2); Pengren Ding (2)

(1) *Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences (China)*; (2) *ZoX Technologies Co., Ltd. (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XCTM5723>

16:00 - 16:20

Mo-A02-PM-17-2 Test and Verification Method of Wireless Battery Management Systems (Invited)

Haowen Wang (1, 2); Fangze Tu (2); Yuhan Tian (1, 2); Pengren Ding (2)

(1) *Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences (China)*; (2) *ZoX Technologies Co., Ltd. (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DUGJ1128>

16:20 - 16:40

Mo-A02-PM-17-3 Testing Methods for Satellite Communication Phased Array Antennas Based on Vector Signal Transceivers (Invited)

Yingying Chu (1); Chen Shen (1); Tingting Liang (1); Haowen Wang (2); Fangze Tu (2); Pengren Ding (2); Yuhan Tian (2)

(1) *Emerson Test and Measurement Group (United States)*; (2) *ZoX Technologies Co., Ltd. (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MLDS2162>

Room B1

B13-2: Scattering of waves by particles: new applications from radio waves to optics - Part 2

Session Chairs: Mariana Dalarsson, KTH, Sweden; Samel Arslanagic, Technical University of Denmark, Denmark

Session Conveners: Mariana Dalarsson, Samel Arslanagic

15:40 - 16:00

Mo-B13-PM-17-1 Quantum Emission and Scattering From Synthetically Rotating Crystals (Invited)

Amaia Vertiz-Conde (1); Iñigo Liberal (1)

(1) Public University of Navarre (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NTZG6933>

16:00 - 16:20

Mo-B13-PM-17-2 Hydration-Tuned Sub-THz Vibrational Absorption of Kinesin and Tubulin (Invited)

Saurabh K. Pandey (1); Michal Cifra (1)

(1) Institute of Photonics and Electronics of the Czech Academy of Sciences (Czech Republic)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CRQJ2788>

16:20 - 16:40

Mo-B13-PM-17-3 Passive Non-Foster Microwave Systems Approaching Fundamental Limits (Invited)

Younes Radi (1); Pardha Sourya Nayani (1); Morteza Moradi (1)

(1) Syracuse University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LCMT8312>

Room B2

B07-1: On the development of effective models for electromagnetic applications - Part 1

Session Chairs: Lars Jonsson, KTH Royal Institute of Technology, Sweden; Valentin de la Rubia, Universidad Politecnica de Madrid, Spain

Session Conveners: Lars Jonsson, Valentin de la Rubia

15:40 - 16:00

Mo-B07-PM-17-1 Model-Order Reduction of Topology Optimization Layouts (Invited)

Miloslav Capek (1); Lukas Jelinek (1)

(1) Czech Technical University in Prague (Czech Republic)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZMWF5573>

16:00 - 16:20

Mo-B07-PM-17-2 Upper Bounds on Efficiency of Pixel Antennas (Invited)

Albert Salmi (1); Philipp Del Hougne (1); Leo Lahti (1); Ville Viikari (1)

(1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/26-0112>

16:20 - 16:40

Mo-B07-PM-17-3 Complexity Reduction Systems for Computing the Monostatic Radar Cross Section

Naranjo Noelia (1); Valentin de la Rubia (1)

(1) Universidad Politecnica de Madrid (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UKNO6977>

Room C

C11: Security and privacy in wireless communications

Session Chairs: Hiren Kumar Deva Sarma, Gauhati University, India; Emil Pricop, Petrol-Gas University of Ploiesti, Romania

Session Conveners: Hiren Kumar Deva Sarma, Emil Pricop

15:40 - 16:00

Mo-C11-PM-17-1 Polarization Shift Keying–based Message Authentication System for Wireless Sensor Networks

Lamoussa Sanogo (1); Gaël Loubet (1); Taki E. Djidjekh (1); Alexandru Takacs (1); Eric Alata (1); Daniela Dragomirescu (1)
(1) Université de Toulouse (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WVUB8192>

16:00 - 16:20

Mo-C11-PM-17-2 Eliminating Artificial Jamming: Energy-Efficient Long-Range Covert Communication with LoRa and MIOTY

Xinying Kilpi-Chen (1); Xinyu Tan (1); Ismo Hakala (1)
(1) University of Jyväskylä (Finland)

Link to paper: <https://doi.org/10.46620/26-0079>

Room D

D04-1: Photonic Integrated Circuits and Sensor Systems - Part 1

Session Chairs: Atsushi Kanno, Nagoya Institute of Technology, Japan; Guillermo Caprintero, Universidad Carlos III de Madrid, Spain

Session Conveners: Guillermo Carpintero, Bhaskar Choubey

15:40 - 16:00

Mo-D04-PM-17-1 Application-Specific Photonic Integrated Circuits for Optical Sensing Systems

Stanisław Stopiński (1, 2, 3); Aleksandra Bieniek-Kaczorek (1); Krzysztof Anders (1, 2, 3); Anna Jusza (1, 2); Ryszard Piramidowicz (1, 2, 3)
(1) Warsaw University of Technology (Poland); (2) LightHouse Sp. z o.o. (Poland); (3) VIGO Photonics S.A. (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BJUQ5104>

16:00 - 16:20

Mo-D04-PM-17-2 Sensing on a Chip - the mid-IR PICs Revolution

Ryszard Piramidowicz (1, 2, 3); Stanisław Stopiński (1, 2, 3); Jacek Olszewski (1, 2); Adrian Ślipek (1, 2); Anna Jusza (2, 3); Krzysztof Anders (1, 2, 3)
(1) VIGO Photonics S.A. (Poland); (2) Warsaw University of Technology, Institute of Microelectronics and Optoelectronics (Poland); (3) LightHouse Sp. z o.o. (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TFYV3206>

16:20 - 16:40

Mo-D04-PM-17-3 On-Fiber 3D-Printed Ring Resonator for Refractive Index Sensing

Piotr Lesiak (1); Łukasz Kozłowski (1); Konrad Pogorzelec (1); Mateusz Kałuża (1); Piotr Sobotka (1); Krzysztof Anders (1); Ryszard Piramidowicz (1)
(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YPTO3355>

Room E

EBC-1: Wave Modelling of Novel Wireless Systems - Part 1

Session Chairs: Luca Bastianelli, National Inter-University Consortium for Telecommunications (CNIT), Italy; Carlo Carobbi, Università degli Studi di Firenze, Italy

Session Conveners: Luca Bastianelli, Gabriele Gradoni, Alain Sibille

15:40 - 16:00

Mo-EBC-PM-17-1 Physics Consistent Machine Learning Aided Ray Tracing for Efficient and Generalizable Radio Propagation Modeling

Gang Yu (1); Gabriele Gradoni (1)

(1) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ODPN2084>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/ir6B4Jr5sosWy2Z>

16:00 - 16:20

Mo-EBC-PM-17-2 Integrated Sensing and Communication in 5G NR

Marjan Abbasi Mosleh (1); Gabriele Gradoni (1)

(1) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EERP5885>

16:20 - 16:40

Mo-EBC-PM-17-3 AI-assisted 3D electromagnetic channel modeling for ISAC

Yadong Yang (1); Gabriele Gradoni (1)

(1) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NZIP7506>

Room F

F11: Open Session on Remote Sensing

Session Chairs: Motoyuki Sato, Tohoku University, Japan

Session Conveners: Motoyuki Sato

15:40 - 16:00

Mo-F11-PM-17-1 Results from Juno's MWR at Jupiter: A Revolutionary New Microwave Instrument

Scott Bolton (1); Anton Ermakov (2); Yohai Kaspi (3); Steven Levin (4); Li Cheng (5); Paul Steffes (6); Zhimeng Zhang (7)

(1) Southwest Research Institute (United States); (2) Stanford University (United States); (3) Weizmann Institute (Israel); (4) Jet Propulsion Laboratory, California Institute of Technology (United States); (5) The University of Michigan (United States); (6) Georgia Institute of Technology (United States); (7) California Institute of Technology (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MSIH5764>

16:00 - 16:20

Mo-F11-PM-17-2 Cross-Entropy-Based Learning Methods in Complex-Valued and Quaternion Neural Networks for Land Classification in Polarimetric Synthetic Aperture Radar

Hiroki Onishi (1); Gunjan Joshi (2); Ryo Natsuaki (1); Akira Hirose (1)

(1) The University of Tokyo (Japan); (2) Helmholtz-Zentrum Dresden-Rossendorf (Germany); (1) The University of Tokyo (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BMOO3126>

Room G1

G10-3: Advances in Irregularities and Scintillation Studies - Part 3

Session Chairs: Jayachandran P. Thayyil, University of New Brunswick, Canada; Rebecca Ghidoni, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Luca Spogli, Kshitija Deshpande, P. T. Jayachandran, Daria Kotova

15:40 - 16:00

Mo-G10-PM-17-1 Characterizing Seasonal and Solar Activity Patterns of Rare Mid-Latitude Ionospheric Scintillation

Trisani Biswas (1, 2); Krishnendu Sekhar Paul (3); Haris Haralambous (2, 3)
(1) Geolmaging Ltd. (Cyprus); (2) Frederick University (Cyprus); (3) Frederick Research Center (Cyprus)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KAAS8155>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/Ej5H8DJ96e3f4Fp>

16:00 - 16:20

Mo-G10-PM-17-2 Mid-latitude VHF Scintillation: More Prevalent Than Expected for Solar Maximum

Theodore Beach (1); Rezy Pradipta (1); Christopher Bridgwood (1); Teddy Surco Espejo (1); Keith Groves (1); Anthea Coster (2); Endawoke Yizengaw (3); Yukitoshi Nishimura (4); Waqar Younas (4)

(1) Boston College (United States); (2) MIT Haystack Observatory (United States); (3) Aerospace Corporation (United States); (4) Boston University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XWQV4038>

16:20 - 16:40

Mo-G10-PM-17-3 A New Window on Ionospheric Dynamics and Morphology: Statistical Characterisation of Ionospheric Irregularities using LOFAR

Rebecca Ghidoni (1); Luca Spogli (1, 2); Maaijke Mevius (3, 4); Claudio Cesaroni (1)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (2) SpaceEarth Technology (Italy); (3) ASTRON (Netherlands); (4) University of Groningen (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZMWN5801>

Room G2

G01-4: Novel radio instruments and techniques for Space Weather model validation and assimilation - Part 4

Session Chairs: David Themens, University of Birmingham, United Kingdom; Grzegorz Nykiel, German Aerospace Center (DLR e.V.), Germany

Session Conveners: David Themens, Christina Arras, Grzegorz Nykiel, Jack Brown

15:40 - 16:00

Mo-G01-PM-17-1 Relative Merits of Ionosondes, Ground GNSS TEC, and Radio Occultations for Ionospheric Data Assimilation (Invited)

Joseph Hughes (1); Ian Collett (2); Anastasia Newheart (3); Camella Nasr (2); Ryan Blay (4); Connor Johnstone (2); Jeffrey Steward (2); Ethan Miller (5); Wesley Leong (5)
(1) NorthWest Research Associates (United States); (2) Orion Space Solutions (United States); (3) NOAA SWPC (United States); (4) Orion Space Solutions (United States); (5) Scout Space (United States); (2) Orion Space Solutions (United States); (5) Systems & Technology Research (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BAPJ8244>

16:00 - 16:20

Mo-G01-PM-17-2 Understanding how TIE-GCM's input parameters drive Fof2 and neutral density using variance-based global sensitivity analysis

Natalie Reeves (1); Sean Elvidge (1); David Themens (1); Matthew Brown (1)
(1) *University of Birmingham (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZXRY2280>

16:20 - 16:40

Mo-G01-PM-17-3 D-Region Reconstruction from Time Series of HF Measurements: A New Capability of the GPSII Assimilative Model

Sergey Fridman (1); L. J. Nickisch (1); Kelsey Kramer (1); Ivan Galkin (2); Vincent Eccles (3); Joseph Malins (4)
(1) *NorthWest Research Associates (United States)*; (2) *University of Massachusetts (United States)*; (3) *Space Dynamics Laboratory (United States)*; (4) *Air Force Research Lab (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UVCB9117>

Room H

HGJ-1: Panel Discussion for Early Career Researchers - Part 1

Session Chairs: *David Hartley, University of Iowa, United States*

Session Conveners: *David Hartley, Bruce Fritz, Mohamed Said Darwish*

15:40 - 16:00

Mo-HGJ-PM-17-1 Navigating the Ionosphere: A Fifteen-Year Journey from GNSS Expansion to the Cislunar Frontier and the AI Revolution (Invited)

Claudio Cesaroni (1)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/STTL2482>

16:00 - 16:20

Mo-HGJ-PM-17-2 From mentee to mentor: or how I learned to stop worrying and love mentoring (Invited)

Allison Jaynes (1)
(1) *University of Iowa (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YMSN2246>

16:20 - 16:40

Mo-HGJ-PM-17-3 The Contributions of the Toruń 32-m Radio Telescope to VLBI Observations: Key Achievements and Future Prospects (Invited)

Marcin Gawroński (1)
(1) *Institute of Astronomy, Nicolaus Copernicus University (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EZJD7141>

Room J1

J01-4: New telescopes and major upgrades to existing facilities - Part 4

Session Chairs: *François Kapp, Caltech, United States; Maria Grazia Labate, Istituto Nazionale di Astrofisica (INAF), Italy*

Session Conveners: *François Kapp, Douglas Bock, Maria Grazia Labate*

15:40 - 16:00

Mo-J01-PM-17-1 Paving the Way for the Next Generation Northern Cross Radio Telescope

Giovanni Naldi (1); Alessio Magro (2); Francesco Fiori (1); Valentina Cesare (1); Nicola Ragno (1); Marco Schiaffino (1); Pietro Bolli (1); Adrian De Barro (2); Luca Beduzzi (3); Gianni Bernardi (1); Germano Bianchi (1); Luca Bruno (1); Keith Bugeja (2); Hayley Camilleri (2); Maria Alessandra De Luca (4); Pierluigi Di Lizia (4); Matteo Fiorentini (1);

Andrea Geminardi (5); Giacomo Lorenzo (1); Mauro Massari (4); Andrea Mattana (1); Marco Felice Montaruli (4); Andrea Orlati (1); Sandro Pastore (6); Davide Pellicciari (1); Federico Perini (1); Maura Pilia (1); Alessandro Poli (1)
(1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) University of Malta (Malta); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) University of Malta (Malta); (3) University of Bologna (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (2) University of Malta (Malta); (4) Politecnico di Milano (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (5) Scuola Universitaria Superiore IUSS Pavia (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (4) Politecnico di Milano (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (4) Politecnico di Milano (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy); (6) Sanitas EG (Italy); (1) Istituto Nazionale di Astrofisica (INAF) (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WQFC9687>

16:00 - 16:20

Mo-J01-PM-17-2 Analog Signal Chain for the Coherent All-Sky Monitor

Saren Daghlain (1); Lingzhen Zeng (2); Pranav Sanghavi (2); Liam Connor (2); Vikram Ravi (1)

(1) California Institute of Technology (United States); (2) Center for Astrophysics, Harvard & Smithsonian (United States); (1) California Institute of Technology (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JRSQ1580>

16:20 - 16:40

Mo-J01-PM-17-3 Preliminary Science Results Obtained with the Angular Super-Resolution Observing Mode of the Sardinia Radio Telescope

Luca Olmi (1); Rodolfo M. Dernini (1); Carlo Migoni (1); Matteo Murgia (1); Renzo Nesti (1); Sergio Poppi (1)

(1) Istituto Nazionale di Astrofisica (INAF) (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OAXJ7614>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/FPLTs3iE9nWqkrL>

Room J2

J02-3: VLBI - Part 3

Session Chairs: Agnieszka Slowikowska, Joint Institute for VLBI ERIC, Netherlands; Anna Bartkiewicz, Institute of Astronomy, Nicolaus Copernicus University, Poland

Session Conveners: Agnieszka Slowikowska, Anna Bartkiewicz, Mohamed Darwish

15:40 - 16:00

Mo-J02-PM-17-1 Ongoing upgrades at the Very Long Baseline Array

Walter Briskin (1)

(1) National Radio Astronomy Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ACEF8554>

16:00 - 16:20

Mo-J02-PM-17-2 Scientific Perspectives of Observations with the Global Millimeter VLBI Array

Andrei Lobanov (1); Eduardo Ros (1); Anton Zensus (1)

(1) Max-Planck-Institut für Radioastronomie (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EDBD6097>

16:20 - 16:40

Mo-J02-PM-17-3 Beyond the first black hole shadows: Recent developments and results by the Event Horizon Telescope Collaboration (Invited)

Hendrik Mueller (1)

(1) National Radio Astronomy Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TXAG6708>

Room K

K04: Electrical and Thermal Property Measurements of Biological Tissues and Phantoms

Session Chairs: Lourdes Farrugia, University of Malta, Malta; Raquel Conceicao Cruz, Universidade de Lisboa, Portugal

Session Conveners: Emily Porter, Lourdes Farrugia, Raquel Cruz Conceição

15:40 - 16:00

Mo-K04-PM-17-1 Revisiting in-vivo RF dielectric tissue models - insights on the relevance of ions in cells measured by multi-nuclear magnetic resonance imaging

Laura Barendsz (1); Kemal Sumser (1); Teresa Gerhalter (2, 3); Armin Nagel (2, 4); Maarten Paulides (1, 5)

(1) Eindhoven University of Technology (Netherlands); (2) University Hospital Erlangen, Friedrich-Alexander-Universität Erlangen-Nürnberg (Germany); (3) Medical University of Graz (Austria); (4) German Cancer Research Center (Germany); (5) Erasmus University Medical Center Cancer Institute (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AWDC1774>

16:00 - 16:20

Mo-K04-PM-17-2 Comparative Analysis of Planar Microwave Waveguides for Label-Free Dielectric Sensing of Liquid Samples

Amir Ghassabi (1); Giulia Risca (1); Alessandra Paffi (1); Micaela Liberti (1); Francesca Apollonio (1)

(1) Sapienza University of Rome (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VJTQ5773>

Room P

ATut: Commission A Tutorial

Session Chairs: José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

15:40 - 16:40

Mo-ATut-PM-17-1 Microwave Sensing and Precision Metrology for Biomedical and Food Quality Applications (Invited)

Ilona Piekarz (1); Jakub Sorocki (1)

(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XPQW1799>

Starting time between 15:40 - 16:39

Room C

CAD: Theory and applications of microwave-photonics hybrid systems

Session Chairs: Kumar Vijay Mishra, University of Maryland, United States; Atsushi Kanno, Nagoya Institute of Technology, Japan

Session Conveners: Kumar Vijay Mishra, Venu Gopal Achanta, Atsushi Kanno, Taner Şengör

16:20 - 16:40

Mo-CAD-PM-21-1 Photonics-Enabled Terahertz Signal Processing and Applications (Invited)

Tien Dat Pham (1)

(1) National Institute of Information and Communications Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MQNL5547>

Starting time between 16:40 - 17:39

Room A

A02-2: Measurements in Telecommunications and Advanced Communication Systems - Part 2

Session Chairs: Tian Hong Loh, National Physical Laboratory, United Kingdom; Ricardo Figueiredo, Instituto de Telecomunicações, Portugal

Session Conveners: Tian Hong Loh, Nuno Carvalho, Ricardo Figueiredo

16:40 - 17:00

Mo-A02-PM-23-1 D-Band Transmission Experiments: Channel Measurement and Waveform Evaluation

Yalin Zhou (1); Zhixin Liu (1); Amar Al-jzari (2); Sana Salous (2); Izzat Darwazeh (1)

(1) University College London (United Kingdom); (2) University of Durham (United Kingdom); (1) University College London (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LMKK9703>

17:00 - 17:20

Mo-A02-PM-23-2 A Novel Real-time Testbed for Multiple-Input-Multiple-Output Link Performance Evaluation using Reverberation Chamber Plus Channel Emulator Over-the-Air Test Method

Yunsong Gui (1); Tian Hong Loh (1)

(1) National Physical Laboratory (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BWMS1593>

Room B1

B13-3: Scattering of waves by particles: new applications from radio waves to optics - Part 3

Session Chairs: Mariana Dalarsson, KTH, Sweden; Samel Arslanagic, Technical University of Denmark, Denmark

Session Conveners: Mariana Dalarsson, Samel Arslanagic

16:40 - 17:00

Mo-B13-PM-23-1 Metasurfaces for Scan-Enhanced Phased Array Antennas (Invited)

Alessio Monti (1); Stefano Vellucci (2); Mirko Barbuto (1); Alessandro Toscano (1); Filiberto Bilotti (1)

(1) Roma Tre University (Italy); (2) Niccolò Cusano University (Italy); (1) Roma Tre University (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LGUF2098>

17:00 - 17:20

Mo-B13-PM-23-2 Tailoring waves at will via temporal and spacetime photonic media (Invited)

Victor Pacheco-Peña (1)
(1) Newcastle University (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/EDQM7948>

17:20 - 17:40

Mo-B13-PM-23-3 Real-time dosimetric computation in homogeneous virtual models: a fast method in the HF to the low-UHF bands (Invited)

Daniele Ferrante (1); Micol Colella (1); Giuseppe Vecchi (2); Francesca Apollonio (1); Micaela Liberti (1)
(1) Sapienza University of Rome (Italy); (2) Politecnico di Torino (Italy); (1) Sapienza University of Rome (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VUVW7088>

Room B2

B07-2: On the development of effective models for electromagnetic applications - Part 2

Session Chairs: Lars Jonsson, KTH Royal Institute of Technology, Sweden; Valentin de la Rubia, Universidad Politécnica de Madrid, Spain

Session Conveners: Lars Jonsson, Valentin de la Rubia

16:40 - 17:00

Mo-B07-PM-23-1 Degrees of Freedom in Communication and Antenna Systems (Invited)

Mats Gustafsson (1)
(1) Lund University (Sweden)
Link to paper: <https://doi.org/10.46620/URSIGASS26/TLVA8035>

17:00 - 17:20

Mo-B07-PM-23-2 Electromagnetic modelling of effective electrical conductivity of rough metallic surfaces

Michał Baranowski (1); Adam Lamecki (1, 2); Łukasz Balewski (2); Michał Mrozowski (1, 2)
(1) Gdansk University of Technology (Poland); (2) EM Invent sp. z o.o. (Poland); (1) Gdansk University of Technology (Poland); (2) EM Invent sp. z o.o. (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KROZ9987>

17:20 - 17:40

Mo-B07-PM-23-3 Exploiting metatronic networks to solve PDEs at microwave frequencies

Ross Glyn MacDonald (1); Victor Pacheco-Peña (1)
(1) Newcastle University (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FBXP6229>

Room D

D04-2: Photonic Integrated Circuits and Sensor Systems - Part 2

Session Chairs: Atsushi Kanno, Nagoya Institute of Technology, Japan; Guillermo Caprintero, Universidad Carlos III de Madrid, Spain

Session Conveners: Guillermo Caprintero, Bhaskar Choubey

16:40 - 17:00

Mo-D04-PM-23-1 The Fabrications of Highly Transparent Self-Powered ZnO-based Photodetectors with Simple Structure

Li wen Wang (1)
(1) National Cheng Kung University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JAUH5232>

17:00 - 17:20

Mo-D04-PM-23-2 Effect of Intrinsic Layer a-SiC Thickness on Low Avalanche Breakdown Voltage of p-i-n Photodiode

Javid Nabizade (1); Zidu Li (1); Bhaskar Choubey (1)
(1) *Institute of Analogue Circuits and Image Sensors, University of Siegen (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WINK8469>

Room E

EBC-2: Wave Modelling of Novel Wireless Systems - Part 2

Session Chairs: Luca Bastianelli, National Inter-University Consortium for Telecommunications (CNIT), Italy; Carlo Carobbi, Università degli Studi di Firenze, Italy
Session Conveners: Luca Bastianelli, Gabriele Gradoni, Alain Sibille

16:40 - 17:00

Mo-EBC-PM-23-1 Cooperative Sensing for Micro-Doppler Signature Measurement in ISAC

Yadong Yang (1); Gabriele Gradoni (1)
(1) *University of Surrey (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KWER3545>

17:00 - 17:20

Mo-EBC-PM-23-2 Channel Characterization of Reverberation Chambers assisted by Reconfigurable Intelligent Surfaces at mmWave Bands

Luca Bastianelli (1, 2); Emanuel Colella (2); Valter Mariani Primiani (2, 1); Franco Moglie (2, 1); Youssef Nasser (3); Geoffroy Lerosey (3); Luca Santamaria (3); Davide Micheli (4); Gabriele Gradoni (5)
(1) *CNIT (National Inter-University Consortium for Telecommunications) (Italy)*; (2) *Università Politecnica delle Marche (Italy)*; (3) *Greenerwave (France)*; (4) *TIM (Italy)*; (5) *University of Surrey (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XFQV9607>

Room G1

G10-4: Advances in Irregularities and Scintillation Studies - Part 4

Session Chairs: Jayachandran P. Thayyil, University of New Brunswick, Canada; Rebecca Ghidoni, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Session Conveners: Luca Spogli, Kshitija Deshpande, P. T. Jayachandran, Daria Kotova

16:40 - 17:00

Mo-G10-PM-23-1 Traveling Ionospheric Disturbances: Detection and Long-term Cycle Characterization

Austin Egert (1); Geoff Crowley (1); Ian Collett (1); Camella-Rosa Nasr (1); Scott Thaller (1); Federico Gasperini (1); Junk Wilson (1); Daniel Knight (1)
(1) *Orion Space Solutions (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QVPH2871>

17:00 - 17:20

Mo-G10-PM-23-2 First Multi-beam Radar Observations of Valley Region QP Echoes Using the Haringhata Radar

Peddapati Pavanchaitanya (1); Amit Patra (1); Ashik Paul (2)
(1) *National Atmospheric Research Laboratory (India)*; (2) *Institute of Radio Physics and Electronics, University of Calcutta (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MUKS7597>

17:20 - 17:40

Mo-G10-PM-23-3 High-Latitude GNSS Scintillation Responses to Storm and Substorm Forcing: Roles of Solar-Wind Driving, AL activity, and Seasonal Dependence

Jay Johnson (1); Braeden Peterson (1); Isaiah Scaffidi (1); Noah Koliadko (2); Christopher Inae (1); Eun-Hwa Kim (3); Syun'ichi Shiraiwa (3); Simon Wing (4); Sebastijan Mrak (4); Nishimura Toshi (5)
(1) Andrews University (United States); (2) Duke University (United States); (1) Andrews University (United States); (3) Princeton Plasma Physics Laboratory (United States); (4) Johns Hopkins University Applied Physics Laboratory (United States); (5) Boston University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MILJ5013>

Room H

HGJ-2: Panel Discussion for Early Career Researchers - Part 2

Session Chairs: David Hartley, University of Iowa, United States; Bruce Fritz, Naval Research Laboratory, United States; Darwish Mohamed, National Research Institute of Astronomy and Geophysics, Egypt

Room J1

J01-5: New telescopes and major upgrades to existing facilities - Part 5

Session Chairs: François Kapp, Caltech, United States; Maria Grazia Labate, Istituto Nazionale di Astrofisica (INAF), Italy

Session Conveners: Francois Kapp, Douglas Bock, Maria Grazia Labate

16:40 - 17:00

Mo-J01-PM-23-1 Enhancing the Event Horizon Telescope with the Tenerife Event-horizon Antenna (Invited)

Maciej Wielgus (1); Jose L. Gomez (2); Sheperd S. Doeleman (3, 4)
(1) Instituto de Astrofísica de Andalucía - CSIC (Spain); (2) IAA-CSIC (Spain); (3) Black Hole Initiative at Harvard University (United States); (4) Center for Astrophysics (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJQH3187>

Room J2

J02-4: VLBI - Part 4

Session Chairs: Agnieszka Slowikowska, Joint Institute for VLBI ERIC, Netherlands; Anna Bartkiewicz, Institute of Astronomy, Nicolaus Copernicus University, Poland

Session Conveners: Agnieszka Slowikowska, Anna Bartkiewicz, Mohamed Darwish

16:40 - 17:00

Mo-J02-PM-23-1 Toward the next-generation Event Horizon Telescope

Lindy Blackburn (1, 2); Sheperd S. Doeleman (1, 2); Garret Fitzpatrick (1); Dominic W. Pesce (1, 2); Jose Soto (3)
(1) Center for Astrophysics, Harvard & Smithsonian (United States); (2) Black Hole Initiative at Harvard University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AWAB3807>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/3qAPdYxkzcSj3RJ>

Room P

FTut: Commission F Tutorial

Session Chairs: Motoyuki Sato, URSI Commission F Chair

16:40 - 17:40

Mo-FTut-PM-23-1 Channel Measurements and Models for THz Communications (Invited)

Thomas Kürner (1)
(1) Technische Universität Braunschweig (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KFXI5656>

Starting time between 16:40 - 17:39

Room D

D08-2: Recent Advances in Electronics and Photonics (Open Session) - Part 2

Session Chairs: Tahsin Akalin, Université de Lille, France; Atsushi Kanno, Nagoya Institute of Technology, Japan

Session Conveners: Atsushi Kanno, Tahsin Akalin

17:20 - 17:40

Mo-D08-PM-27-1 LOD and WPE Impact for Core MOSFETs Threshold Voltage in Various Submicron CMOS Technologies

Marika Grochowska (1); Witold Pleskacz (2)

(1) Cadence Design Systems (Poland); (2) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OJJ1723>

Starting time between 17:40 - 20:00

Room A

ACCA-1: Commission A - Coordinating Activities Meeting - Part 1

Session Chairs: Amitava Sen Gupta, URSI Commission A Chair

Room B1

BCCA-1: Commission B - Coordinating Activities Meeting - Part 1

Session Chairs: Henrik Wallen, URSI Commission B Chair

Room C

CCCA-1: Commission C - Coordinating Activities Meeting - Part 1

Session Chairs: Kumar Vijay Mishra, URSI Commission C Chair

Room D

DCCA-1: Commission D - Coordinating Activities Meeting - Part 1

Session Chairs: Atsushi Kanno, URSI Commission D Chair

Room E

ECCA-1: Commission E - Coordinating Activities Meeting - Part 1

Session Chairs: Carlo Carobbi, URSI Commission E Chair

Room F

FCCA-1: Commission F - Coordinating Activities Meeting - Part 1

Session Chairs: Motoyuki Sato, URSI Commission F Chair

Room G1

GCCA-1: Commission G - Coordinating Activities Meeting - Part 1

Session Chairs: Keith Groves, URSI Commission G Chair

Room H

HCCA-1: Commission H - Coordinating Activities Meeting - Part 1

Session Chairs: Craig J. Rodger, URSI Commission H Chair

Room J1

JCCA-1: Commission J - Coordinating Activities Meeting - Part 1

Session Chairs: Stefan Wijnholds, URSI Commission J Chair

Room K

KCCA-1: Commission K - Coordinating Activities Meeting - Part 1

Session Chairs: Francesca Apollonio, URSI Commission K Chair

Tuesday, 18 August 2026

Starting time between 08:00 - 09:29

Room A

A02-3: Measurements in Telecommunications and Advanced Communication Systems - Part 3

Session Chairs: Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India

Session Conveners: Tian Hong Loh, Nuno Carvalho, Ricardo Figueiredo

08:30 - 08:50

Tu-A02-AM-04-1 NEWSPACE Portugal: A Ground IoT Metrology Architecture for Augmented EarthObservation

Ricardo Figueiredo (1); Nuno Carvalho (2)
(1) Instituto de Telecomunicações de Aveiro (Portugal); (2) Universidade de Aveiro (Portugal)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OWUE1749>

08:50 - 09:10

Tu-A02-AM-04-2 Altitude-Dependency of Link Budget with UAV-mounted RIS

Paweł Hatka (1); Marcel Garczyk (1); Paweł Płaczekiewicz (1); Michał Sybis (1); Paweł Sroka (1); Adrian Kliks (1)
(1) Poznan University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WZRL8520>

09:10 - 09:30

Tu-A02-AM-04-3 Experimental Characterization of the PIN diode-Integrated to Reconfigurable Intelligent Surface (Invited)

Zia Ullah Khan (1); Tian Loh (1); Martin Salter (1)
(1) National Physical Laboratory (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XGQA3393>

Room C

C21: Modeling, Designing and Measurement Techniques for Time-Modulated Arrays

Session Chairs: Grzegorz Bogdan, Warsaw University of Technology, Poland; Roberto Maneiro-Catoira, Universidad de A Coruña, Spain

Session Conveners: Grzegorz Bogdan, Adrian Kliks, Luis Castedo, Roberto Maneiro-Catoira

08:30 - 08:50

Tu-C21-AM-04-1 A Dual-Surface Programmable STAR-RIS Time-modulated Platform with Custom CMOS RFICs and Packaged Antenna Arrays at 60 GHz for Non-line-of-sight ISAC (Invited)

Kaushik Sengupta (1)
(1) Princeton University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZLWN2342>

08:50 - 09:10

Tu-C21-AM-04-2 Direct Stepped-Frequency Continuous-Wave Waveform and Beam Steering with Time-Modulated Arrays

Roberto Maneiro-Catoira (1); Jose Garcia-Naya (2); Julio Brégains (2); Luis Castedo (2)
(1) Universidad de A Coruña (Spain); (2) Universidade da Coruña (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KPVN2762>

09:10 - 09:30

Tu-C21-AM-04-3 Mitigation of Impedance Mismatch in Time-Modulated Antenna Arrays with Reflective Switches

Grzegorz Bogdan (1); Yevhen Yashchysyn (1)
(1) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TBVA7144>

09:30 - 09:50

Tu-C21-AM-04-4&&- Modulated Arrays with Wide Steering Range and Direct QAM Modulation (Invited)

Edward Ball (1); Sumin David Joseph (1)
(1) *The University of Sheffield (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EQYN3589>

Room D

DC: Device and system technologies for Beyond 5G/6G applications

Session Chairs: Atsushi Kanno, Nagoya Institute of Technology, Japan; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Atsushi Kanno, Kumar Vijay Mishra

08:30 - 08:50

Tu-DC-AM-04-1 Low Cost FSOC Aided Positioning and Attitude Fusion via Geometric Pointing Constraints

Shi Ziyuan (1); Wang Yibing (1); Zhang Yaoyao (1); Alouini Mohamed-Slim (1)
(1) *King Abdullah University of Science and Technology (KAUST) (Saudi Arabia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KOHV5786>

08:50 - 09:10

Tu-DC-AM-04-2 FPGA-based polarization stabilization for RoF systems toward optical-radio seamless networks

Mamiya Shintaro (1); Atsushi Kanno (1)
(1) *Nagoya Institute of Technology (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KKUZ1235>

09:10 - 09:30

Tu-DC-AM-04-3 Wireless link telemetry and routing optimization in wired-wireless seamless networks implemented with millimeter-wave fixed wireless systems

Ichikawa Satoki (1); Atsushi Kanno (1)
(1) *Nagoya Institute of Technology (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJIL8818>

Room E

E02-1: EMC Measurement Techniques and Standards - Part 1

Session Chairs: Carlo Carobbi, Università degli Studi di Firenze, Italy; Ramiro Serra, Eindhoven University of Technology, Netherlands

Session Conveners: Carlo Carobbi, Ramiro Serra

08:30 - 08:50

Tu-E02-AM-04-1 To Tilt or Not to Tilt – That Is the Question ... Regarding RF Emissions Measurement for EMC Compliance

Krzysztof Sieczkarek (1); Adam Mackowiak (1); Tomasz Warzynski (1)
(1) *Lukasiewicz - Poznan Institute of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EOCY4878>

08:50 - 09:10

Tu-E02-AM-04-2 Periodical verifications and sanity checks of EMC antennas

Carlo Carobbi (1); Tommaso Magnolfi (1)

(1) *Università degli Studi di Firenze (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XVDW2239>

09:10 - 09:30

Tu-E02-AM-04-3 Laboratory stand for generation and measurement of HPEM-UWB pulse levels

Emilia Sakowska (1); Leszek Nowosielski (1); Bartosz Dudziński (1)

(1) *Military University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GFDP2256>

Room F

F02-1: Remote Sensing of Precipitation - Part 1

Session Chairs: Luca Baldini, *Consiglio Nazionale delle Ricerche, Italy*; V. Chandrasekar, *Colorado State University, United States*

Session Conveners: Chandrasekar V, Luca Baldini

08:50 - 08:50

Tu-F02-AM-04-1 Practice and Application of X-band Phased Array Weather Radar Cooperative Network in Shanghai Megacity

Haojun Chen (1, 2); Chongxiang Zhang (1); Chao Liu (1); Jianhua Dai (1, 2); Qiuli Zhang (1); Guorong Wang (3, 2); Xijia Liu (3, 2)

(1) *Shanghai Meteorological Service (China)*; (2) *East China Phased Array Weather Radar Application Joint Laboratory (China)*; (3) *Zhejiang Whole Sense Radar Co., Ltd. (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XESW8680>

08:50 - 09:10

Tu-F02-AM-04-2 Principles of Data Fusion from Heterogeneous Gap-Filling Weather Radar Network in Complex Terrain

Renzo Bechini (1); V. Chandrasekar (1); Sounak Biswas (1); Rob Cifelli (1); Jonathan Rutz (2)

(1) *Colorado State University (United States)*; (2) *University of California, San Diego (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KHWM3302>

09:10 - 09:30

Tu-F02-AM-04-3 2019 Kerala Extreme Rainfall Event: Insights from Dual-Polarized Doppler Weather Radar Observations

Vaibhav Tyagi (1); Saurabh Das (1)

(1) *Indian Institute of Technology Indore (India)*

Link to paper: <https://doi.org/10.46620/26-0097>

Room G1

G07-1: The High Latitude Atmosphere - Part 1

Session Chairs: [Liliana Macotela, Norwegian Research Centre, Norway](#)

Session Conveners: [Liliana Macotela, Wojciech Jacek Miloch, Giorgia De Franceschi, Ralph Latteck, Lucilla Alfonsi](#)

08:30 - 08:50

Tu-G07-AM-04-1 Dynamics of Ionospheric Irregularities in the Southern Polar Cap during the May 2024 Mother's Day Superstorm

Luca Spogli (1); Lucilla Alfonsi (1); Claudio Cesaroni (1); Emanuele Pica (1); Kaili Song (2); P.T. Jayachandran (2)

(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *University of New Brunswick (Canada)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/OQER8768](https://doi.org/10.46620/URSIGASS26/OQER8768)

08:50 - 09:10

Tu-G07-AM-04-2 Large-Scale Traveling Ionospheric Disturbances and High-Latitude Scintillation During Recent Geomagnetic Storms

Anthea Coster (1); Shun-Rong Zhang (1); Nestor Aponte (1); Joseph Huba (2); Shanshan Bao (3); Ying Ye (3)

(1) *MIT Haystack Observatory (United States)*; (2) *Syntek Technologies (United States)*; (3) *Rice University (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/RKVY3327](https://doi.org/10.46620/URSIGASS26/RKVY3327)

09:10 - 09:30

Tu-G07-AM-04-3 Inconsistent substorm identification and implications for inferred occurrence properties and physical understanding (Invited)

Mervyn Freeman (1); Christian Lao (2)

(1) *British Antarctic Survey (United Kingdom)*; (2) *University College London (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/LTPV1057](https://doi.org/10.46620/URSIGASS26/LTPV1057)

Room G2

G02-3: International Beacon Satellite Studies - Part 3

Session Chairs: [Bruno Nava, International Centre for Theoretical Physics, Italy](#); [Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland](#)

Session Conveners: [Bruno Nava, Andrzej Krankowski, Seebany Datta-Barua](#)

08:30 - 08:50

Tu-G02-AM-04-1 RT-FAIRS: Real-time Factor-Adjusted Ionospheric Residual Statistics approach for generating accuracy information in Global Ionospheric Maps (Invited)

Ningbo Wang (1); Li Ang (1); Hernández-Pajares Manuel (2); Krankowski Andrzej (3); Zishen Li (1); Fron Adam (3)

(1) *Aerospace Information Research Institute, Chinese Academy of Sciences (China)*; (2) *IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain)*; (3) *University of Warmia and Mazury in Olsztyn (Poland)*; (1) *Aerospace Information Research Institute, Chinese Academy of Sciences (China)*; (3) *University of Warmia and Mazury in Olsztyn (Poland)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/OEPS3449](https://doi.org/10.46620/URSIGASS26/OEPS3449)

08:50 - 09:10

- Tu-G02-AM-04-2 Advanced Digital Phase Synchronization and Atmospheric Correction Using Digital Source Modulated Satellite Beacons in Optical Aperture Synthesis**
Thushara Gunaratne (1); Zoran Ljusic (1); Brent Carlson (1); Glen Herriot (1); Ross Cheriton (1); Alexis Hill (1)
(1) *National Research Council Canada (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UITX5562>

09:10 - 09:30

- Tu-G02-AM-04-3 Assessment of NeQuick-G for Regional Ionospheric Correction Enhancement in Europe**
Trisani Biswas (1, 2); Vasilis Petrou (1); Haris Haralambous (2, 3)
(1) *Geolmaging Ltd. (Cyprus)*; (2) *Frederick University (Cyprus)*; (3) *Frederick Research Center (Cyprus)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CBGN8653>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/og6G9etpn5k3zxZ>

Room H

H02-6: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts - Part 6

- Session Chairs:* Ondrej Santolik, *Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic*; Yoshizumi Miyoshi, *Nagoya University, Japan*
Session Conveners: David Hartley, Ondrej Santolik, Yoshizumi Miyoshi

08:50 - 09:10

- Tu-H02-AM-04-1 Investigating EMIC Wave Propagation from Source to Ionosphere: Full-Wave Simulations**
Eun-Hwa Kim (1); Jay Johnson (2); Syun'chi Shiraiwa (1); Daena Holbrook (2)
(1) *Princeton Plasma Physics Laboratory (United States)*; (2) *Andrews University (United States)*; (1) *Princeton Plasma Physics Laboratory (United States)*; (2) *Andrews University (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EDBZ1166>

09:10 - 09:30

- Tu-H02-AM-04-2 Electromagnetic Ion Cyclotron (EMIC) waves observed in the vicinity of the magnetopause**
Benjamin Grison (1); Lars Klingenstein (2); Niklas Grimmich (1); Vavrinec Kavan (1); Ondrej Santolik (1)
(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (2) *Technische Universität Braunschweig (Germany)*; (1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/RRUE4109>

Room J1

J07-1: Front-end systems - Part 1

- Session Chairs:* Jin Fan, *National Space Science Center, Chinese Academy of Sciences, China*
Session Conveners: Jin Fan, Maria Kovaleva, Paulo José de Aguiar Simões

08:30 - 08:50

- Tu-J07-AM-04-1 Uncooled, ultra low noise L-band feed for the Westerbork Synthesis Radio Telescope**
Paulus Krüger (1); Mark Ruiter (1); Geert Vastenhouw (1); David Prinsloo (1)
(1) *ASTRON (Netherlands)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/HTLF9124>

08:50 - 09:10

Tu-J07-AM-04-2 Ambient L-band receiver for high-cadence monitoring of fast radio bursts at Westerbork

Mark Ruiter (1); Paulus Kruger (1); Jason Hessels (1, 2); Geert Vastenhoud (1); Michel Arts (1); Jeroen Herrewijnen (1); David Prinsloo (1); Arno Schoenmakers (1); Roel Witvers (1); Nina Gusinskaia (1, 2); Reshma Anna-Thomas (1, 2); Omar Ould-Boukattine (1, 2); Lute Bult (1); Richard Blauw (1); Jurgen Morawietz (1); Sieds Damstra (1); Albert Van Duin (1); Mark Olijve (1); Sjouke Kuindersma (1); Scott Polotto (1)
(1) *ASTRON (Netherlands)*; (2) *Vrije Universiteit Amsterdam (Netherlands)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OFSF9270>

09:10 - 09:30

Tu-J07-AM-04-3 Ultra Low-Noise Power Supply for Low-Noise Receiver Front-Ends

Sieds Damstra (1)
(1) *ASTRON (Netherlands)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ODXO7430>

Room J2

J04-1: Time-domain radio astronomy - Part 1

Session Chairs: Karen Perez, SETI Institute, United States

Session Conveners: Kejia Lee, Jayanta Roy, Maura Pilia, Jason Hessels

08:30 - 08:50

Tu-J04-AM-04-1 On the Deepest Search for Galactic Center Pulsars and an Examination of an Intriguing Millisecond Pulsar Candidate

Karen I. Perez (1, 2); Vishal Gajjar (2, 3); Slavko Bogdanov (4); Jules P. Halpern (1, 4); Paul B. Demorest (5); Steve Croft (6, 3, 2); Matt Lebofsky (3); David H. E. MacMahon (3); Andrew P. V. Siemion (6, 3, 7, 2, 8)
(1) *Department of Astronomy, Columbia University (United States)*; (2) *SETI Institute (United States)*; (3) *Breakthrough Listen, University of California, Berkeley (United States)*; (4) *Columbia Astrophysics Laboratory, Columbia University (United States)*; (5) *National Radio Astronomy Observatory (United States)*; (6) *Astrophysics, Department of Physics, University of Oxford (United Kingdom)*; (7) *Radboud University, Department of Astrophysics/IMAPP (Netherlands)*; (8) *University of Malta, Institute of Space Sciences and Astronomy (Malta)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/RJBT8349>

08:50 - 09:10

Tu-J04-AM-04-2 Discovering Millisecond Pulsars in Globular Clusters with the GMRT (GCGPS)

Jyotirmoy Das (1); Jayanta Roy (1); Paulo C. C. Freire (2); Scott Ransom (3, 4); Bhaswati Bhattacharyya (1); Karel Adamek (5); Wes Armour (6); Sanjay Kudale (7, 1); Mekhala V. Muley (7)
(1) *National Centre for Radio Astrophysics TIFR (India)*; (2) *Max-Planck-Institut for Radioastronomy (Germany)*; (3) *University of Virginia (United States)*; (4) *National Radio Astronomy Observatory (United States)*; (5) *Silesian University in Opava (Czech Republic)*; (6) *University of Oxford (United Kingdom)*; (7) *Giant Metrewave Radio Telescope (India)*
Link to paper: <https://doi.org/10.46620/26-0089>

09:10 - 09:30

Tu-J04-AM-04-3 Connecting single-pulse jitter with profile stability for characterizing timing noise in millisecond pulsars

Ankita Ghosh (1); Bhaswati Bhattacharyya (1)
(1) *National Centre for Radio Astrophysics TIFR (India)*
Link to paper: <https://doi.org/10.46620/26-0083>

Room K

K05-1: Dosimetry & RF Exposure Assessment - Part 1

Session Chairs: Kun Li, *The University of Electro-Communications, Japan*; Francesca Apollonio, *Sapienza University of Rome, Italy*

Session Conveners: Kun Li, *Jafar Keshvari, Kensuke Sasaki, Maxim Zhadobov*

08:30 - 08:50

Tu-K05-AM-04-1 Sampling Algorithms for Comprehensive SAR Measurement System Validation

Mark Douglas (1, 2); Cedric Bujard (1); Esra Neufeld (1, 3); Simone Callegari (3); Niels Kuster (1, 2)
(1) *Foundation for Research on Information Technologies in Society (Switzerland)*; (2) *Schmid & Partner Engineering AG (Switzerland)*; (3) *ZMT Zurich MedTech AG (Switzerland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QFKM9207>

08:50 - 09:10

Tu-K05-AM-04-2 Error Models to Quantify the Effectiveness of SAR Measurement System Validation

Mark Douglas (1, 2); Cedric Bujard (1); Esra Neufeld (1, 3); Niels Kuster (1, 2)
(1) *Foundation for Research on Information Technologies in Society (Switzerland)*; (2) *Schmid & Partner Engineering AG (Switzerland)*; (3) *ZMT Zurich MedTech AG (Switzerland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BMBE8813>

09:10 - 09:30

Tu-K05-AM-04-3 Evaluation of Incident Power Density Based on Enhanced Near-Field Reconstruction

Miao Cao (1); Faiz Rehman (1); Yutong Du (1); Zupeng Liang (1); Zicheng Liu (1)
(1) *School of Electronics and Information, Northwestern Polytechnical University (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EBEF5138>

Starting time between 08:00 - 09:29

Room B1

B09-5: Novel mathematical methods in electromagnetics - Part 5

Session Chairs: Yury Shestopalov, *RTU MIREA — Russian Technological University, Russia*; Kazuya Kobayashi, *Chuo University, Japan*

Session Conveners: Kazuya Kobayashi, *Guido Lombardi, Yury Shestopalov*

08:50 - 09:10

Tu-B09-AM-06-1 Fundamentals of the Theory of Modified $L_1^*(c,n)$ Numbers (Invited)

Mariana Nikolova Georgieva-Grosse (1); Georgi Nikolov Georgiev (1)
(1) *Consulting and Researcher in Physics, Mathematics and Computer Sciences (Bulgaria)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ARMF3573>

09:10 - 09:30

- Tu-B09-AM-06-2 Spectral Analysis of 2-D Generalized Source Integral Equations (GSIEs) (Invited)**
Suryakumar Sivakumar (1); Yossi Dahan (2); Yaniv Brick (2); Simon Adrian (1)
(1) *Universität Rostock (Germany)*; (2) *Ben Gurion University of the Negev (Israel)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CECO9062>

Room B2

B15-1: Metamaterials and metasurfaces to control and tailor wave propagation - Part 1

- Session Chairs:* Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy
Session Conveners: Victor Pacheco-Peña, Carlo Rizza

08:50 - 09:10

- Tu-B15-AM-06-1 Spectral Singularities in Gain-Assisted Metasurface Cavities for Enhanced Wave Manipulation (Invited)**
Rasmus E. Jacobsen (1); Pietro Brugnolo (2, 1); Samel Arslanagic (1)
(1) *Technical University of Denmark (Denmark)*; (2) *Lund University (Sweden)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JFGJ8121>

09:10 - 09:30

- Tu-B15-AM-06-2 Macroscopic Design of Power-Efficient Non-Local Metasurfaces for Analog Computations**
Mario Phaneuf (1); Puyan Mojabi (1)
(1) *University of Manitoba (Canada)*
Link to paper: <https://doi.org/10.46620/26-0094>

Starting time between 09:30 - 10:29

Room A

A02-4: Measurements in Telecommunications and Advanced Communication Systems - Part 4

- Session Chairs:* Tian Hong Loh, National Physical Laboratory, United Kingdom; S. Chakraborty, CSIR-Central Electronics Engineering Research Institute, India
Session Conveners: Tian Hong Loh, Nuno Carvalho, Ricardo Figueiredo

Room B1

B09-6: Novel mathematical methods in electromagnetics - Part 6

- Session Chairs:* Yury Shestopalov, RTU MIREA — Russian Technological University, Russia; Kazuya Kobayashi, Chuo University, Japan
Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

09:30 - 09:50

- Tu-B09-AM-10-1 Self-Tuning LCPML-log for FEM Mesh Truncation: From Locally-Conformal PML to Parameter-Free Single-Layer Absorption (Invited)**
Ozgun Ozlem (1); Bural Berk (1, 2); Kuzuoglu Mustafa (3); Mittra Raj (4)
(1) *Hacettepe University (Turkey)*; (2) *ASELSAN (Turkey)*; (3) *Middle East Technical University (Turkey)*; (4) *University of Central Florida (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BJOW5768>

09:50 - 10:10

- Tu-B09-AM-10-2 Electromagnetic Diffraction and Radiation from a Dielectric-Filled Spherical Cavity Between Impedance Surfaces Using the Method of Auxiliary Sources (Invited)**
Emre İscan (1); Vasil Tabatadze (1); Kamil Karaçuha (1)
(1) *Istanbul Technical University (Turkey)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XOCX1159>

Room B2

B15-2: Metamaterials and metasurfaces to control and tailor wave propagation - Part 2

Session Chairs: Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy

Session Conveners: Victor Pacheco-Peña, Carlo Rizza

09:30 - 09:50

Tu-B15-AM-10-1 Broadband Shielding Effectiveness Enhancement via Low-Loss Time-Modulated Shields (Invited)

Kishwar Ali (1); Ayesha Shabbir (1); Martin Stumpf (2); Jonas Ekman (3); Giulio Antonini (1)
(1) University of L'Aquila (Italy); (2) Brno University of Technology (Czech Republic); (3) Luleå University of Technology (Sweden); (1) University of L'Aquila (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZNPV2569>

09:50 - 10:10

Tu-B15-AM-10-2 Study and Design of a Varactor-Loaded Time-Modulated Metasurface

Mabinty Coumbassa (1); Badreddine Ratni (1); Thomas Lepetit (2); Shah Nawaz Burokur (1)

(1) Université Paris Nanterre (France); (2) Onera (France); (1) Université Paris Nanterre (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TBAQ4687>

Room D

D06: Advanced signal processing technologies in photonics and electronics

Session Chairs: Tsuyoshi Konishi, Waseda University, Japan; Tahsin Akalin, Université de Lille, France

Session Conveners: Tsuyoshi Konishi, Tahsin Akalin

09:30 - 09:50

Tu-D06-AM-10-1 Signal processing techniques for optical fiber communications in harsh environments (Invited)

Lijia Liu (1); Ryotaro Yamashita (1); Atsushi Kanno (1)

(1) Nagoya Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UZEI5979>

09:50 - 10:10

Tu-D06-AM-10-2 Optimization on Measurable Carrier Frequencies and Data Sampling Points in High-Frequency RF Signal Measurement using Optical Sideband Generation

Tsuyoshi Konishi (1); Syuta Azu (1); Daigo Arai (1)

(1) Waseda University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YSRE5273>

Room E

E02-2: EMC Measurement Techniques and Standards - Part 2

Session Chairs: Chaouki Kasmi, Technology Innovation Institute, United Arab Emirates; Ramiro Serra, Eindhoven University of Technology, Netherlands

Session Conveners: Carlo Carobbi, Ramiro Serra

09:30 - 09:50

Tu-E02-AM-10-1 Reconfiguration of floor absorbers in anechoic chambers in fast pre-compliance RF immunity tests

Krzysztof Sieczkarek (1); Adam Mackowiak (1); Tomasz Warzynski (1)

(1) Lukaszewicz - Poznan Institute of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JCHI6427>

09:50 - 10:10

Tu-E02-AM-10-2 Effect of Absorber Material on Shielding Effectiveness Estimation of Samples using Non-Intrusive Measurement Method in Reverberation Chambers

Muhammad Ubaid Imtiaz (1); Ramiro Serra (1)
(1) *Eindhoven University of Technology (Netherlands)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IHAP4544>

Room F

F02-2: Remote Sensing of Precipitation - Part 2

Session Chairs: V. Chandrasekar, Colorado State University, United States; Luca Baldini, Consiglio Nazionale delle Ricerche, Italy

Session Conveners: Chandrasekar V, Luca Baldini

09:30 - 09:50

Tu-F02-AM-10-1 Four Years of Vertically Pointing Radar Observations at Mario Zucchelli Station, Antarctica, and Implications for Satellite Ground Validation

Luca Baldini (1); Giacomo Roversi (1, 2); Alessandro Bracci (1); Kaori Sato (3); Hajime Okamoto (4)
(1) *Consiglio Nazionale delle Ricerche (Italy)*; (2) *Università Ca' Foscari (Italy)*; (3) *Kyushu University (Japan)*; (4) *Kyushu Institute of Technology (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OYSG2402>

09:50 - 10:10

Tu-F02-AM-10-2 Contrasting Atmospheric Drivers of Intense Rainfall over Delhi NCR, India, during Pre-Monsoon and Winter Seasons: A Multi-Sensor Space-borne and Ground-based Analysis

Gargi Rakshit (1); Ashim Kumar Mitra (1); Ram Kumar Giri (1)
(1) *India Meteorological Department (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DMYI2687>

Room G1

G07-2: The High Latitude Atmosphere - Part 2

Session Chairs: Liliana Macotela, Norwegian Research Centre, Norway

Session Conveners: Liliana Macotela, Wojciech Jacek Miloch, Giorgia De Franceschi, Ralph Latteck, Lucilla Alfonsi

09:30 - 09:50

Tu-G07-AM-10-1 Resolving Space-Time Ambiguities in PMSE Observations Using the MAARSY-3D VHF Radar System

Ralph Latteck (1); Jorge L. Chau (1); Devin Huyghebaert (1); Toralf Renkowitz (1)
(1) *Leibniz Institute of Atmospheric Physics (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UHYL9641>

09:50 - 10:10

Tu-G07-AM-10-2 The characteristics of polar mesospheric radar echoes observed with EISCAT VHF

Ingrid Mann (1); Lakshmi, V Narayanan (2)
(1) *UiT The Arctic University of Norway (Norway)*; (2) *Krea University (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LMJK5245>

Room G2

G02-4: International Beacon Satellite Studies - Part 4

Session Chairs: Bruno Nava, *International Centre for Theoretical Physics, Italy; Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland*

Session Conveners: Bruno Nava, Andrzej Krankowski, Seebany Datta-Barua

09:30 - 09:50

Tu-G02-AM-10-1 Three decades of continuous monitoring of ionospheric electronic content on a global scale and new derived products (Invited)

Manuel Hernandez-Pajares (1); David Roma-Dollase (2); Alberto Garcia-Rigo (3); Raul Orus-Perez (4); Germán Olivares-Pulido (1); Qi Liu (5); Victoria Graffigna (1); Heng Yang (6); Enric Monte-Moreno (7); Anna Belehaki (8); Angeliki Thanassou (8); Ivan Galkin (9); Wojciech Jarmolowski (10); Paweł Wielgosz (10); Vincent Fabbro (11); Xavier Baumann (11); Joseph Maria Aroca-Farrerons (12)
(1) IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain); (2) ICE/IEEC & CSIC (Spain); (3) IEEC (Spain); (4) ESA (Netherlands); (5) IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain); (6) Henan University (China); (7) IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain); (8) Yangtze Normal University (China); (9) UPC, UPC-TALP (Spain); (8) National Observatory of Athens (Greece); (9) University of Massachusetts (United States); (10) University of Warmia and Mazury in Olsztyn (Poland); (11) Onera (France); (12) Universitat Politècnica de Catalunya (Spain)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CXWL4795>

09:50 - 10:10

Tu-G02-AM-10-2 Independent validation and weighting of IGS ionospheric maps using DORIS-based dSTEC information

Ningbo Wang (1); Adam Froń (2); Andrzej Krankowski (2); Zishen Li (1); Manuel Hernández-Pajares (3); Ang Liu (1)
(1) Chinese Academy of Sciences (China); (2) University of Warmia and Mazury in Olsztyn (Poland); (1) Chinese Academy of Sciences (China); (3) Universitat Politècnica de Catalunya (Spain); (1) Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/DFVO9317>

Room H

H03-1: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts - Part 1

Session Chairs: Allison Jaynes, *University of Iowa, United States*

Session Conveners: Allison Jaynes, Mark A. Clilverd

09:50 - 10:10

Tu-H03-AM-10-2 Energetic Electron Precipitation and Its Effects on the Atmosphere

Dedong Wang (1)
(1) GFZ Helmholtz Centre for Geosciences (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UVZL6704>

Room J1

J07-2: Front-end systems - Part 2

Session Chairs: Jin Fan, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Jin Fan, Maria Kovaleva, Paulo José de Aguiar Simões

09:30 - 09:50

Tu-J07-AM-10-1 MPIfR Band 5ab: Highly Integrated Rx Design for SKA-MID

Christoph Kasemann (1); Rafael Castenholz (1); Stefan Heyminck (1); Sebastina Hüskes (1); Michael Kuntschev (1); Michael Nalbach (1); Gundolf Wieching (1)
(1) Max-Planck-Institut for Radioastronomy (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QXOQ5054>

09:50 - 10:10

Tu-J07-AM-10-2 A 700 MHz to 33 GHz Receiver Upgrade for Murriyang, the CSIRO Parkes Radio Telescope

Alex Dunning (1); Douglas Hayman (1); Bahar Mohamadzade (1); Shi Dai (1); Stephanie Smith (1)

(1) CSIRO, Space and Astronomy (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JZHL4743>

Room J2

J04-2: Time-domain radio astronomy - Part 2

Session Chairs: Karen Perez, SETI Institute, United States

Session Conveners: Kejia Lee, Jayanta Roy, Maura Pilia, Jason Hessels

09:30 - 09:50

Tu-J04-AM-10-1 Lowest Radio Frequency Detection of a Magnetar

Banshi Lal (1); Yogesh Maan (1)

(1) National Centre for Radio Astrophysics TIFR (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FLMY5254>

09:50 - 10:10

Tu-J04-AM-10-2 Current Status of FRB Observations Using the 32-m Toruń Radio Telescope

Marcin Gawroński (1)

(1) Institute of Astronomy, Nicolaus Copernicus University (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WVZJ5889>

Room K

K05-2: Dosimetry & RF Exposure Assessment - Part 2

Session Chairs: Kun Li, The University of Electro-Communications, Japan; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Kun Li, Jafar Keshvari, Kensuke Sasaki, Maxim Zhadobov

09:30 - 09:50

Tu-K05-AM-10-1 Computational Assessment of the Near-Field Radio-Frequency Exposure of the Migratory Locust

Menno Van de Meerakker (1); Sumser Kemal (1); Niels Bijl (1); Giovanni Costa (1); Maria Bouga (2); Jürg Fröhlich (3); Fani Hatjina (4); Anke Huss (5); Anastasia Kalapouti (4); Menelaos Stavrinides (6); Androulla Varnava (6); Zoi Thanou (2); Antonios Tsagkarakis (2); Marco Zahner (3); Margarethus M. Paulides (1, 7); Arno Thielens (8)

(1) Eindhoven University of Technology (Netherlands); (2) Agricultural University of Athens (Greece); (3) Fields at Work GmbH (Switzerland); (4) Hellenic Agriculture Organization DEMETER (Greece); (5) Institute for Risk Assessment Sciences, Utrecht University (Netherlands); (6) Hellenic Agriculture Organization DEMETER (Greece); (7) Cyprus University of Technology (Cyprus); (8) Agricultural University of Athens (Greece); (3) Fields

at Work GmbH (Switzerland); (1) Eindhoven University of Technology (Netherlands); (7) Erasmus University Medical Center Cancer Institute (Netherlands); (8) City University of New York (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RDJT9227>

09:50 - 10:10

Tu-K05-AM-10-2 Modelling the RF electromagnetic dose delivered during the uplink: a comparison between 2G, 4G and 5G technologies

Giovanni Costa (1); Arno Thielens (2); Hamed Jalilian (3); Anke Huss (4); Martin Rösli (3); Margarethus Maarten Paulides (1, 5)

(1) Eindhoven University of Technology (Netherlands); (2) City University of New York (United States); (3) Swiss Tropical and Public Health Institute (Switzerland); (4) Institute for Risk Assessment Sciences, Utrecht University (Netherlands); (5) Erasmus University Medical Center Cancer Institute (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VXIL7206>

Starting time between 09:30 - 10:29

Room C

C13: Signal Processing for UAV-based Systems

Session Chairs: Shubhankar Majumdar, National Institute of Technology Meghalaya, India; Arpan Chattopadhyay, IIT Delhi, India

Session Conveners: Shubhankar Majumdar, Arpan Chattopadhyay

09:50 - 10:10

Tu-C13-AM-12-1 An Analysis of Hypergeometrical Divide Algorithm Properties in Data Clustering

Jakub Olszewski (1, 2); Łukasz Rybak (2, 1); Janusz Dudczyk (2, 1)

(1) WB Electronics S.A (Poland); (2) Military University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FTSR5558>

Starting time between 10:30 - 11:29

Room A

A03: Electromagnetic Characterization of material properties

Session Chairs: Amitava Sen Gupta, North Cap University, India; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Noshervan Shoaib, Imran Shoaib, Takashi Shimizu

10:30 - 10:50

Tu-A03-AM-16-1 Application of magnetite nanoparticles in imaging the distribution of electromagnetic fields

Andrzej Żądło (1); Tomasz Rok (1); Grzegorz Tatoń (1)

(1) Jagiellonian University Medical College, Faculty of Medicine (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NFWK7037>

10:50 - 11:10

Tu-A03-AM-16-2 Moisture Content Estimation in Heterogeneous Wood Particles via FMCW Radar: A Physics-Informed Phase Feature with Bayesian-Regularized Neural Networks

Zeynep Sude İleri (1); Sude Uslu (1); Mehdi Sellami (1); Selçuk Helhel (1)

(1) Akdeniz University (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OLRV4351>

11:10 - 11:30

Tu-A03-AM-16-3 Complex Permittivity Estimation at W-Band Using Gap Based Transmission Interferometer

Gabi Ariel (1); Ori Glikstein (1); Boris Litvak (1); Vladimir Freydin (1); Gad A Pinhasi (1)
(1) *Ariel University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ITLU6150>

Room B1

B02-1: Antenna theory, design and measurements - Part 1

Session Chairs: Debatosh Guha, *University of Calcutta, India*; Andrea Michel, *University of Pisa, Italy*; Sima Noghanian, *Ruckus Networks, United States*

Session Conveners: Debatosh Guha, *Andrea Michel, Sima Noghanian*

10:30 - 10:50

Tu-B02-AM-16-1 AI-Driven Wireless Systems and Smart Textiles: Existent Research Landscapes, Integration Pathways, and Future Direction

Ivan Miguel Pires (1); Paulo Jorge Coelho (2, 3); Saif Al-jumaili (4); Fernando J. Velez (5); Sana Salous (6)

(1) *Instituto de Telecomunicações, Escola Superior de Tecnologia e Gestão de Águeda, Universidade de Aveiro (Portugal)*; (2) *School of Technology and Management, Polytechnic University of Leiria (Portugal)*; (3) *Institute for Systems Engineering and Computers at Coimbra (INESC Coimbra) (Portugal)*; (4) *Institute of Biophysics and Biomedical Engineering (IBEB), Faculty of Sciences, University of Lisbon (Portugal)*; (5) *Instituto de Telecomunicações and Universidade da Beira Interior, DEM – Fac. Engenharia (Portugal)*; (6) *Center for Communication Systems, School of Engineering, University of Durham (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IYXY5428>

10:50 - 11:10

Tu-B02-AM-16-2 When Artificial Intelligence Essentially Drives Microstrip Antenna Engineering (Invited)

Sk Rafidul (1); Mobayode O. Akinsolu (2); Bo Liu (3); Chandrakanta Kumar (4); Debatosh Guha (5)

(1) *HCL Technologies Limited (India)*; (2) *Wrexham University (United Kingdom)*; (3) *University of Glasgow (United Kingdom)*; (4) *U R Rao Satellite Centre (India)*; (5) *Institute of Radio Physics and Electronics, University of Calcutta (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XMRD6526>

11:10 - 11:30

Tu-B02-AM-16-3 Design of a High-Gain Frequency-Reconfigurable Patch Antenna for Multi-Band Wireless Applications

Thomas Doyle (1); Xiulong Bao (1); İlhami Ünal (1); Robert Bogdan Staszewski (1)
(1) *University College Dublin (Ireland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WDOK4032>

Room B2

B07-3: On the development of effective models for electromagnetic applications - Part 3

Session Chairs: Lars Jonsson, KTH Royal Institute of Technology, Sweden; Valentin de la Rubia, Universidad Politecnica de Madrid, Spain

Session Conveners: Lars Jonsson, Valentin de la Rubia

10:30 - 10:50

Tu-B07-AM-16-1 Characteristic Modes of Bi-Isotropic Objects (Invited)

Henrik Wallén (1); Pasi Ylä-Oijala (1)

(1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PKUZ3901>

10:50 - 11:10

Tu-B07-AM-16-2 Scattering From a Ferroelectric Material in a Parallel Plate Waveguide (Invited)

Daniel Sjöberg (1)

(1) Lund University (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YRFM5575>

11:10 - 11:30

Tu-B07-AM-16-3 On Electromagnetic Simulation of Large Finite Array Antennas with Identical Elements and Uniform Spacing.

B. L. G. Jonsson (1); Harald Hultin (1); Lucas Åkerstedt (1)

(1) KTH Royal Institute of Technology (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AJAF8505>

Room C

C07: Radio positioning, navigation, and timing (PNT)

Session Chairs: Krzysztof Cwalina, Gdansk University of Technology, Poland; Piotr Rajchowski, Gdansk University of Technology, Poland

Session Conveners: Krzysztof Cwalina, Piotr Rajchowski

10:30 - 10:50

Tu-C07-AM-16-1 Estimation of UWB Ranging Errors Through Neural Network Driven Analysis of Channel Impulse Response in Automated Robotic Platform Scenario

Vitomir Djaja-Josko (1); Marcin Kolakowski (1); Jozef Modelski (1)

(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BEXW3088>

10:50 - 11:10

Tu-C07-AM-16-2 Leveraging Mobile Robots for Domain-Adaptive Wi-Fi Fingerprinting

Marcin Kolakowski (1); Vitomir Djaja-Josko (1); Jerzy Kolakowski (1)

(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BPKW5693>

Room D

D01-1: Multiphysics-based system design for future ICT devices and systems - Part 1

Session Chairs: Akihiko Hirata, Chiba Institute of Technology, Japan; Atsushi Kanno, Nagoya Institute of Technology, Japan

Session Conveners: Akihiko Hirata, Guillaume Ducournau

10:30 - 10:50

Tu-D01-AM-16-1 Comparative Quality-Factor Analysis of Magnetically Actuated MEMS Terahertz Metasurfaces Using single and double Split-Ring Resonators for Dielectric Sensing

Anil Babu Badisa (1); Przemyslaw Lopato (1); Michal Herbko (1); Andras Kovacs (2); Ulrich Mescheder (2)

(1) West Pomeranian University of Technology in Szczecin (Poland); (2) Furtwangen University (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HCK7334>

10:50 - 11:10

Tu-D01-AM-16-2 Impact of Bending and Twisting on Amplitude and Phase Characteristics of the E-band Flexible Waveguide

Kota Nakazawa (1); Ogaki Arata (1); Tetsuya Kawanishi (1)

(1) Waseda University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EDMU8595>

11:10 - 11:30

Tu-D01-AM-16-3 Joint Control of Laser Linewidth and Lineshape via FPGA-Based Phase-Noise PSD Shaping

Akihiro Muneta (1); Chen Zheng (1); Tetsuya Kawanishi (1, 2)

(1) Waseda University (Japan); (2) National Institute of Information and Communications Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BUEW5914>

Room E

E02-3: EMC Measurement Techniques and Standards - Part 3

Session Chairs: Chaouki Kasmi, Technology Innovation Institute, United Arab Emirates; Ramiro Serra, Eindhoven University of Technology, Netherlands

Session Conveners: Carlo Carobbi, Ramiro Serra

10:30 - 10:50

Tu-E02-AM-16-1 Characterising the Radiated Emissions of Radio Astronomical Receivers by use of a Reverberation Chamber and an ultra-sensitive, broad-bandwidth, high resolution measurement system

Christian Leinz (1); Ewan Barr (1); Monika Rutowska (1); Christoph Kasemann (1); Gundolf Wieching (1)

(1) Max-Planck-Institut for Radioastronomy (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JEVD1999>

10:50 - 11:10

Tu-E02-AM-16-2 Estimators of effective sample size of reverberation chamber measurements

Carlo Carobbi (1); Giovannetti Francesco (1)

(1) Università degli Studi di Firenze (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HNBW4451>

11:10 - 11:30

Tu-E02-AM-16-3 Modeling of Compromising Emanations as High-Pass Differentiating Systems and Their Impact on Visual Information Reconstruction

Emilia Sakowska (1); Leszek Nowosielski (1)

(1) *Military University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YEBK4851>

Room F

F02-3: Remote Sensing of Precipitation - Part 3

Session Chairs: Luca Baldini, *Consiglio Nazionale delle Ricerche, Italy*; V. Chandrasekar, *Colorado State University, United States*

Session Conveners: Chandrasekar V, Luca Baldini

10:30 - 10:50

Tu-F02-AM-16-1 Uplink Mitigation for Opportunistic Rain Sensing in Satellite Links with Fixed-Gain Mode Transponders

Emanuele Maria Sciortino (1); Emanuele Tavanti (1); Fabiola Sapienza (1); Alessandro Piras

(1); Vincenzo Lottici (1); Attilio Vaccaro (2); Giovanni Scognamiglio (2); Filippo Giannetti (1)

(1) *Department of Information Engineering, University of Pisa (Italy)*; (2) *MBI Srl (Italy)*; (1)

Department of Information Engineering, University of Pisa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QHLU4040>

10:50 - 11:10

Tu-F02-AM-16-2 Temporal Experiment for Storms and Tropical Systems – Demonstration (TEMPEST-D) CubeSat Mission Providing Atmospheric Sounding and Remote Sensing of Precipitation for Three Years and Follow-on Missions (Invited)

Steven C. Reising (1); V. Chandrasekar (1); Chandrasekar Radhakrishnan (1); Christian D.

Kummerow (1); Shannon T. Brown (2); Chia-Pang Kuo (1); Richard Schulte (1); Todd C.

Gaier (2); Sharmila Padmanabhan (2)

(1) *Colorado State University (United States)*; (2) *Jet Propulsion Laboratory, California*

Institute of Technology (United States); (1) *Colorado State University (United States)*; (2)

Jet Propulsion Laboratory, California Institute of Technology (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QHLF5875>

11:10 - 11:30

Tu-F02-AM-16-3 Validating satellite radar rain products using radars and other ground-based sensors

Luca Baldini (1); Sabina Angeloni (1); Elisa Adirosi (1); Mario Montopoli (1, 2); Alessandro

Bracci (1); Giacomo Roversi (1, 3)

(1) *Consiglio Nazionale delle Ricerche (Italy)*; (2) *CETEMPS (Italy)*; (3) *Università Ca' Foscari*

(Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LNXF6502>

Room G1

G07-3: The High Latitude Atmosphere - Part 3

Session Chairs: [Ralph Latteck, Leibniz Institute of Atmospheric Physics, Germany](#)

Session Conveners: [Liliana Macotela, Wojciech Jacek Miloch, Giorgia De Franceschi, Ralph Latteck, Lucilla Alfonsi](#)

10:30 - 10:50

Tu-G07-AM-16-1 High-latitude ionosphere-thermosphere response to geomagnetic storms (Invited)

Anita Aikio (1); Lei Cai (1); Nada Ellahouny (1); Gopika Geethakumari (1); Marcus Pedersen (1); Habtamu Tesfaw (1); Heikki Vanhamäki (1); Ilkka Virtanen (1)
(1) University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DOKO9471>

10:50 - 11:10

Tu-G07-AM-16-2 A comprehensive analysis of ionosphere-thermosphere coupling in the Northern polar region during the May 2024 geomagnetic superstorm

Lei Cai (1); Anita Aikio (1); Gopika Geethakumari (1); Heikki Vanhamäki (1); Ilkka Virtanen (1); Shin-ichiro Oyama (2); Yongliang Zhang (3); Marc Hairston (5)
(1) University of Oulu (Finland); (2) Nagoya University (Japan); (3) Johns Hopkins University Applied Physics Laboratory (United States); (4) National Space Science Center, Chinese Academy of Sciences (China); (5) University of Texas at Dallas (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XPDP5687>

11:10 - 11:30

Tu-G07-AM-16-3 Observations of isolated mesospheric radar echoes at high latitudes – Evidence for a Clayer phenomenon?

Toralf Renkowitz (1); Yadu Krishna Krishnakumar (2); Andreas Ahrens (2)
(1) Leibniz Institute of Atmospheric Physics (Germany); (2) Hochschule Wismar, University of Applied Sciences (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OBKH1276>

Room G2

G03-1: Ionosondes in their distributed, coordinated, advanced measurement modes - Part 1

Session Chairs: [Ivan Galkin, University of Massachusetts, United States; Tobias Verhulst, Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence, Belgium](#)

Session Conveners: [Ivan Galkin, Tobias Verhulst](#)

10:30 - 10:50

Tu-G03-AM-16-1 Storm-Time Ionospheric Variability during the 12–13 November 2025 Geomagnetic Event over Japanese and Australian Sectors

Krishnendu Sekhar Paul (1); Haris Haralambous (2)
(1) Frederick Research Center (Cyprus); (2) Frederick University (Cyprus)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JMAQ3836>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/PWMnf5NKDe3zbaN>

10:50 - 11:10

Tu-G03-AM-16-2 Ionospheric absorption changes during the Mother Day Superstorm in May 2024 as seen by different types of ionosonde data

Veronika Barta (1); Tobias Verhulst (2); David Altadill (3); Zbysek Mosna (4); Antoni Segarra (3); Csilla Szárnya (1); Victor De Paula (3); Attila Buzás (1, 5, 6)
(1) HUN–REN Institute of Earth Physics and Space Science (Hungary); (2) STCE - Royal Meteorological Institute (Belgium); (3) Observatori de l'Ebre, University Ramon Llull - CSIC (Spain); (4) Department of Ionosphere and Aeronomy, Institute of Atmospheric Physics,

Czech Academy of Sciences (Czech Republic); (5) HUN-REN–ELTE Space Research Group (Hungary); (6) Department of Geophysics and Space Science, Institute of Geography and Earth Sciences, ELTE Eötvös Loránd University (Hungary)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WELT5748>

11:10 - 11:30

Tu-G03-AM-16-3 Enhancing Regional Ionospheric Observations with a Multistatic Oblique Ionosonde Network

Achille Zirizzotti (1); Carlo Scotto (1); Dario Sabbagh (1); Alessandro Ippolito (1)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CRNA6752>

Room H

H03-2: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts - Part 2

Session Chairs: Mark A. Clilverd, British Antarctic Survey (NERC-UKRI), United Kingdom

Session Conveners: Allison Jaynes, Mark A. Clilverd

10:30 - 10:50

Tu-H03-AM-16-1 Evolution of Electron Flux Spectra over a Substorm Period with Pulsating Aurora Activity (Invited) (Invited)

Jodie McLennan (1); Allison Jaynes (1); Riley Troyer (2); Stephen Kaeppeler (3); Mykhaylo Shumko (4)

(1) University of Iowa (United States); (2) Space Dynamics Laboratory (United States); (3) Clemson University (United States); (4) Geophysical Institute, University of Alaska Fairbanks (United States)

Link to paper: <https://doi.org/10.46620/26-0117>

10:50 - 11:10

Tu-H03-AM-16-2 Examination of Radiation Belt Dynamics during Isolated Substorms

Craig J. Rodger (1); Mark A. Clilverd (2); Clare E. J. Watt (3); I. Jonathan Rae (3); Colin Forsyth (4)

(1) University of Otago (New Zealand); (2) British Antarctic Survey (NERC-UKRI) (United Kingdom); (3) Northumbria University (United Kingdom); (4) University College London (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OAXT1712>

11:10 - 11:30

Tu-H03-AM-16-3 Amplification of Low Frequency EM Waves in the Ionosphere to Induce Particle Precipitation in the Magnetosphere

Paul Bernhardt (1); Ilya Kuzichev (2); Andrew Howarth (3)

(1) University of Alaska (United States); (2) New Jersey Institute of Technology (United States); (3) University of Calgary (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZAMF2882>

Room J1

J07-3: Front-end systems - Part 3

Session Chairs: Jin Fan, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Jin Fan, Maria Kovaleva, Paulo José de Aguiar Simões

10:30 - 10:50

Tu-J07-AM-16-1 Status of a combined highly sensitive VLBI K-, Q-, and W-band receiver for Effelsberg.

Christoph Kasemann (1); Rafael Castenholz (1); Stefan Heyminck (1); Michael Kuntschev (1); Michael Nalbach (1); Gundolf Wieching (1)

(1) Max-Planck-Institut für Radioastronomie (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PYEI5849>

10:50 - 11:10

Tu-J07-AM-16-2 Additive Manufacturing of a Corrugated Feed Horn for ngVLA Band-5: Design and Performance Assessment

Sara Salem Hesari (1); Eric Lemay (2); Adam Densmore (1)

(1) National Research Council Canada (Canada); (2) Innovation, Science and Economic Development Canada (Canada); (1) National Research Council Canada (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XAQT6247>

11:10 - 11:30

Tu-J07-AM-16-3 A 3D-Printed Luneburg Lens Antenna with continuously Reconfigurable Beams for Planar Measurement

Xiaolong Liu (1); Zan Wang (1); Jin Fan (1); Xiaolan Wang (2); Jie Zhang (1); Duo Ji (1); De-Qing Kong (1)

(1) Chinese Academy of Sciences (China); (2) Chinese Academy of Meteorological Sciences (China); (1) Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GMZX9105>

Room J2

J-IAU: 70 years of radio astronomy in Finland, Latvia, Poland and Ukraine (Leonid Gurvits, Andrzej Kus) (Part 1)

Session Chairs: Leonid Gurvits, Delft University of Technology, Netherlands

Room K

K02 & K03: EM Field Interactions with Membranes and Cellular Signaling

Session Chairs: Michal Cifra, Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic; Lluis M. Mir, Université Paris-Saclay, Institut Gustave Roussy, CNRS, France; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Francesca Apollonio, Michal Cifra, Lluis M Mir

10:30 - 10:50

Tu-K02 & K03-AM-16-1 Models of the electric fields interaction with membranes and experimental validation of their predictions

Lluis M. Mir (1); Leslie Aurélie Vallet (1); Francesca Camera (2); Caterina Merla (2)

(1) Université Paris-Saclay, Institut Gustave Roussy, CNRS (France); (2) ENEA (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KCAW1341>

10:50 - 11:10

Tu-K02 & K03-AM-16-2 Molecular Dynamics Investigation of TRPV4 under Static and 3.5 GHz RF Electromagnetic Fields

Carmen Pisano (1); Laura Caramazza (1, 2); Paolo Marracino (3); Federico Del Signore (4); Micaela Liberti (1, 2); Francesca Apollonio (4, 2)
(1) *ICEmB DIET - Sapienza University of Rome (Italy)*; (2) *Center for Life Nano and Neuro-Science, Fondazione Istituto Italiano di Tecnologia (IIT) (Italy)*; (3) *RISE Technology (Italy)*; (4) *Sapienza University of Rome (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZZJV8828>

11:10 - 11:30

Tu-K02 & K03-AM-16-3 Controlling calcium signaling through repetitive mild electroporation

Leslie Vallet (1); Masoud Hosseini Doost (1); Aracelys Garcia-Moreno (1); Burak Altun (1); Ferran Camps (1); Antoni Ivorra (1)
(1) *Universitat Pompeu Fabra (Spain)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QOIC1581>

Room P

HIS: Historical Session

Session Chairs: *Natchimuthuk Gopalswamy, NASA Goddard Space Flight Center, United States*

08:30 - 08:50

Tu-HIS-AM-16-1 Monitoring of Solar Radio Activity Using CALLISTO Spectrometers

Bartosz Dabrowski (1); Daniela Banys (2); Christian Monstein (3); Andrzej Krankowski (1); Leszek Blaszkiewicz (1); Adam Fron (1); Bartosz Radzanowski (1); Michal Kownacki (1)
(1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *German Aerospace Center (DLR) (Germany)*; (3) *Università della Svizzera italiana (USI) (Switzerland)*; (1) *University of Warmia and Mazury in Olsztyn (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RJOU8535>

08:50 - 09:10

Tu-HIS-AM-16-2 Observation Results of the Meter to Decameter Wave Spectral Radio Heliograph (MDRH)

Linjie Chen (1); Zhichao Zhou (1)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FRMK7270>

09:10 - 09:30

Tu-HIS-AM-16-3 The SunRISE Mission: Updates and Launch Planning (Invited)

Susan Lepri (1); T. Joseph W. Lazio (2); Benjamin Setterholm (3); Noura Ibrahim (1); Marin Anderson (4); Andres Romero-Wolf (5); James Lux (4); Tim Neilsen (6); Lynn Wilson (7); Cole Heckathorn (1); Ward B. Manchester (1); C. M. S. Cohen (2); Nathan Schwadron (8); Justin C. Kasper (9)
(1) *The University of Michigan (United States)*; (2) *California Institute of Technology (United States)*; (3) *Max Planck Institute for Astronomy (Germany)*; (1) *The University of Michigan (United States)*; (4) *Jet Propulsion Laboratory, California Institute of Technology (United States)*; (5) *Physical Insights, LLC (United States)*; (4) *Jet Propulsion Laboratory, California Institute of Technology (United States)*; (6) *Utah State University (United States)*; (7) *NASA Goddard Space Flight Center (United States)*; (1) *The University of Michigan (United States)*; (2) *California Institute of Technology (United States)*; (8) *University of New Hampshire (United States)*; (9) *BWX Technologies, Inc. (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FTIH1113>

Starting time between 10:30 - 11:29

Room C

C15: Emerging Array Signal Processing Methods for Next-Generation Communication and Radar Applications

Session Chairs: *Ahmet M. Elbir, Istinye University, Turkey; Mitesh Solanki, Marwadi University, India*

Session Conveners: *Ahmet M. Elbir, Miteshbhai Solanki*

11:10 - 11:30

Tu-C15-AM-20-1 Spherical Harmonic Domain Beamforming for Robust 3D Multi-User MIMO Systems

Constantinos Mylonakis (1, 2); Pantelis Velanas (1); Aikaterini Margariti (1); Nikolaos Kantartzis (2); Pavlos Lazaridis (3); Sotirios Goudos (4, 2); Zaharias Zaharis (2, 4)
(1) *Acceligen Ltd. (Cyprus)*; (2) *Aristotle University of Thessaloniki (Greece)*; (3) *School of Computing and Engineering, University of Huddersfield (United Kingdom)*; (4) *ELEDIA @ AUTH (Greece)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/PWBX3363>

Starting time between 11:30 - 12:29

Room A

ACK: From Metrology to Biophysics & Medicine: Planar Microwave Sensors and Standards for Biomedical & Biochemical Applications

Session Chairs: *Ilona Piekarz, AGH University of Krakow, Poland; Jakub Sorocki, AGH University of Krakow, Poland*

Session Conveners: *Ilona Piekarz, Jakub Sorocki, Michal Cifra, Amit Kumar Singh*

11:30 - 11:50

Tu-ACK-AM-22-1 Phase Variation Microwave Sensors for Label-Free Bacteria Detection

Ilona Piekarz (1); Jakub Sorocki (1)
(1) *AGH University of Krakow (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BWIF1086>

11:50 - 12:10

Tu-ACK-AM-22-2 Microfluidics-Integrated Microwave Cytometry for Dielectric Characterization at the Micron-Scale

Uzay Tefek (1, 2); Hashim Z. Alhmoud (2); Tieu Lan Chau (2); Yagmur Ceren Alatas (3); Sayedus Salehin (2); Temple Douglas (1); Ozge Saatci (4); Burge Ulukan (4); Scott Auerbach (2); Beana Puka (2); Serkan İsmail Goktuna (2); Ilyas Chachoua (2); Ozgur Sahin (4); Mehmet Selim Hanay (1, 2)
(1) *International Iberian Nanotechnology Laboratory (Portugal)*; (2) *Bilkent University (Turkey)*; (3) *École Polytechnique Fédérale de Lausanne (Switzerland)*; (4) *Medical University of South Carolina (United States)*

Link to paper: <https://doi.org/10.46620/26-0093>

Room B1

B02-2: Antenna theory, design and measurements - Part 2

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

11:30 - 11:50

Tu-B02-AM-22-1 An Ensemble Approach to Post-Processing of Antenna Measurements Performed in Uncontrolled Environmental Conditions

Adrian Bekasiewicz (1); Vorya Waladi (1); Mariusz Dzwonkowski (1, 2)
(1) Gdansk University of Technology (Poland); (2) Medical University of Gdansk (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/HAKX2321>

11:50 - 12:10

Tu-B02-AM-22-2 Measurement-Driven Layout Optimization for Suppressing Sidelobes in Modular 1-Bit Phased Arrays

Hsi-Tseng Chou (1); Teng Chang (1)
(1) National Taiwan University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/TEZU3436>

12:10 - 12:30

Tu-B02-AM-22-3 Near-Field Beam Shaping in Phased-Array Radar Using Genetic Algorithms

Benzion Levy (1); Lior Maman (2); Boag Amir (2); Levine Ely (3); Yosef Pinhasi (1)
(1) Ariel University (Israel); (2) Tel Aviv University (Israel); (3) Afeka College of Engineering (Israel); (1) Ariel University (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/HBUB7635>

Room B2

B07-4: On the development of effective models for electromagnetic applications - Part 4

Session Chairs: Lars Jonsson, KTH Royal Institute of Technology, Sweden; Valentin de la Rubia, Universidad Politecnica de Madrid, Spain

Session Conveners: Lars Jonsson, Valentin de la Rubia

11:30 - 11:50

Tu-B07-AM-22-1 Quasi-Analytical Approach to the Analysis of SIW Based Structures (Invited)

Malgorzata Warecka (1); Rafal Lech (1); Piotr Kowalczyk (1)
(1) Gdansk University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/MLHV6197>

11:50 - 12:10

Tu-B07-AM-22-2 Minimizing the RCS of a Strip Dipole Closely Spaced Above a Limited-Size Metallic Plate

Milan Polivka (1); Viktor Rosman (1)
(1) Czech Technical University in Prague (Czech Republic)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GNMD6289>

12:10 - 12:30

Tu-B07-AM-22-3 FDTD Source-Architecture Effects on Near to Far-Field Transforms

Henry Nance (1); Clint Snider (1)
(1) Auburn University (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GUZI6902>

Room C

C03: Satellite systems & positioning

Session Chairs: Sanat Biswas, IIT Delhi, India; Amitava Sen Gupta, North Cap University, India

Session Conveners: Sanat Biswas, Amitava Sen Gupta

11:30 - 11:50

Tu-C03-AM-22-1 Highly-integrated Solid State Power Amplifier in X-Band for new space satellite transmitters

Przemyslaw Kant (1); Felix Mentgen (2); Jerzy Michalski (1)

(1) SpaceForest (Poland); (2) European Space Agency ESTEC (Netherlands); (1) SpaceForest (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TBCC4976>

Room D

D01-2: Multiphysics-based system design for future ICT devices and systems - Part 2

Session Chairs: Akihiko Hirata, Chiba Institute of Technology, Japan; Atsushi Kanno, Nagoya Institute of Technology, Japan

Session Conveners: Akihiko Hirata, Guillaume Ducournau

11:30 - 11:50

Tu-D01-AM-22-1 Mechanical fluctuation mitigation in optical wireless communication using large-aperture high-speed photodetector

Toshimasa Umezawa (1); Atsushi Matsumoto (1); Kouichi Akahane (1); Naokatsu Yamamoto (1)

(1) National Institute of Information and Communications Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HUYA5686>

11:50 - 12:10

Tu-D01-AM-22-2 Experimental Study on Frequency Response Variations of Multi-Mode Fibers under External Perturbations

Nao Komatsu (1); Kanna Onda (1); Tetsuya Kawanishi (1)

(1) Waseda University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KWFG9291>

12:10 - 12:30

Tu-D01-AM-22-3 Waveform evaluation of 980-nm multi-mode optical fiber link under temperature stresses

Atsushi Kanno (1); Mizuno Mitsuhiko (1); Liu Lijia (1); Kagami Manabu (1)

(1) Nagoya Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YZJG2419>

Room E

E07: Lightning and Related Phenomena

Session Chairs: Takeshi Morimoto, Kindai University, Japan; Carlo Carobbi, Università degli Studi di Firenze, Italy

Session Conveners: Rafael Alipio, Takeshi Morimoto, Davide Pavanella

11:30 - 11:50

Tu-E07-AM-22-1 Small-Scale Discharges in the Thunderstorm Prior to Lightning Initiation

Christopher Sterpka (1); Brian Hare (1, 2); Olaf Scholten (2, 1); Paulina Turekova (1); Marten Lourens (1); Bin Wu (3); Joseph Dwyer (4); Ningyu Liu (4); Steven Cummer (5)

(1) ASTRON (Netherlands); (2) University of Groningen (Netherlands); (3) Chinese Academy of Meteorological Sciences (China); (4) University of New Hampshire (United States); (5) Duke University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UBOP8936>

11:50 - 12:10

Tu-E07-AM-22-2 Comprehensive Synergistic Electromagnetic Observations of Tropical Lightning in Malaysia

Takeshi Morimoto (1); Mohad Riduan Ahmad (2); Mohd Zafri Baharuddin (3); Yuji Takayanagi (1); Muhammad Haziq Mohammad Sabriand (1)
(1) Kindai University (Japan); (2) Universiti Teknikal Malaysia Melaka (Malaysia); (3) Universiti Tenaga Nasional (Malaysia); (1) Kindai University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IAJY7381>

Room G1

G07-4: The High Latitude Atmosphere - Part 4

Session Chairs: [Ralph Latteck, Leibniz Institute of Atmospheric Physics, Germany](#)
Session Conveners: [Liliana Macotela, Wojciech Jacek Miloch, Giorgia De Franceschi, Ralph Latteck, Lucilla Alfonsi](#)

11:50 - 12:10

Tu-G07-AM-22-2 2D Ion Composition Fits to the EISCAT Svalbard Radar Antenna Scans

Ayanew Nigusie (1); Ilkka Virtanen (1); Heikki Vanhamäki (1)
(1) University of Oulu (Finland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CVRT5224>

11:30 - 11:50

Tu-G07-AM-22-2 Ionospheric-Induced Degradation in Interferometric Satellite Synthetic Aperture Radar data

Liliana Macotela (1); Lindsay Goodwin (2); Heidi Hindberg (1); Juha Vierinen (3); Tom Grydeland (1); Knut S Jacobsen (4); Tom Rune Lauknes (1); Bimal Dahal (2); Ruslan Sherstyukov (5); Daria Kotova (6); Alexander Kozlovsky (5)
(1) Norwegian Research Centre (Norway); (2) New Jersey Institute of Technology (United States); (1) Norwegian Research Centre (Norway); (3) UiT The Arctic University of Norway (Norway); (1) Norwegian Research Centre (Norway); (4) Norwegian Mapping Authority (Norway); (1) Norwegian Research Centre (Norway); (2) New Jersey Institute of Technology (United States); (5) University of Oulu (Finland); (6) University of Oslo (Norway); (5) University of Oulu (Finland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NJGJ6902>

Room G2

G03-2: Ionosondes in their distributed, coordinated, advanced measurement modes - Part 2

Session Chairs: [Ivan Galkin, University of Massachusetts, United States; Tobias Verhulst, Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence, Belgium](#)
Session Conveners: [Ivan Galkin, Tobias Verhulst](#)

11:30 - 11:50

Tu-G03-AM-22-1 Association of daytime MSTIDs with nighttime SF over midlatitudes

Krishnendu Sekhar Paul (1); Ankita Nandakumar (2); Haris Haralambous (3); Tiju Mathew (2); Tobias Verhulst (4)
(1) Frederick Research Center (Cyprus); (2) Department of Physics, Research Centre of University of Kerala (India); (3) Frederick University (Cyprus); (2) Department of Physics, Research Centre of University of Kerala (India); (4) Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence (Belgium)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LFOZ8301>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/A36ZPwZFAj5CYdB>

11:50 - 12:10

- Tu-G03-AM-22-2 GIRO-Based Ionospheric Electron Density Profile Model for HF Radio Propagation and Channel Modeling**
Jarosław Wojtuń (1); Cezary Ziółkowski (1); Bogdan Uljasz (1); Jan M. Kelner (1)
(1) *Institute of Communications Systems, Faculty of Electronics, Military University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BOKV7565>

12:10 - 12:30

- Tu-G03-AM-22-3 Investigation on plasma velocities in ionosphere over low latitude Hainan station: Digisonde measurement**
Jiankui Shi (1); Guojun Wang (1); Ivan Galkin (2)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*; (2) *University of Massachusetts (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KAEB9191>

Room H

H03-3: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts - Part 3

Session Chairs: Mark A. Clilverd, British Antarctic Survey (NERC-UKRI), United Kingdom
Session Conveners: Allison Jaynes, Mark A. Clilverd

11:30 - 11:50

- Tu-H03-AM-22-1 The correlation between high-latitude chorus waves and pulsating aurora in the same hemisphere**
Shannon Hill (1); Lily Daneshmand (1); Andrea Minot (1); Allison Jaynes (1)
(1) *University of Iowa (United States)*
Link to paper: <https://doi.org/10.46620/26-0126>

11:50 - 12:10

- Tu-H03-AM-22-2 Electron precipitation fluxes over South Atlantic Magnetic Anomaly (SAMA): an statistical view**
Livia Alves (1); Ligia Da Silva (1); Laysa Resende (1); Jose Marchezi (1); Jayne Melo (1); David Sibeck (2)
(1) *National Institute for Space Research (Brazil)*; (2) *NASA Goddard Space Flight Center (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EWUG1746>

12:10 - 12:30

- Tu-H03-AM-22-3 Techniques in the direction of energy inversion of ground-based data from pulsating aurora spectral emissions**
Andrea Minot (1); Allison Jaynes (1); Christine Gabrielse (2); Jun Liang (3); Emma Spanswick (3)
(1) *University of Iowa (United States)*; (2) *Aerospace Corporation (United States)*; (3) *University of Calgary (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XKTY6792>

Room J1

J07-4: Front-end systems - Part 4

Session Chairs: Jin Fan, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Jin Fan, Maria Kovaleva, Paulo José de Aguiar Simões

11:30 - 11:50

Tu-J07-AM-22-1 A Cryogenically Cooled Broadband Magnetolectric Dipole Antenna for S-Band Radio Astronomy

Keerthipriya Sathish (1, 2); Mayuri Sathyanarayana Rao (1); Debdeep Sarkar (2)
(1) Raman Research Institute (India); (2) Indian Institute of Science (IISc) (India)

Link to paper: <https://doi.org/10.46620/26-0106>

11:50 - 12:10

Tu-J07-AM-22-2 Bayesian Beam Recovery from Solar Drift Scans

Konstantinos Karathanas (1); Padelis Papadopoulos (1, 2)
(1) Aristotle University of Thessaloniki (Greece); (2) Research Center for Astronomy, Academy of Athens (Greece)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XOZJ4765>

12:10 - 12:30

Tu-J07-AM-22-3 Embedded Element Length in the Measurement Equation of Radio Telescopes

Tobia Carozzi (1)
(1) Chalmers (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RAUH2597>

Room J2

J-IAU: 70 years of radio astronomy in Finland, Latvia, Poland and Ukraine (Leonid Gurvits, Andrzej Kus) (Part 2)

Session Chairs: Leonid Gurvits, Delft University of Technology, Netherlands

Room K

K03-2: Electromagnetic Stimulation and Monitoring at the Cellular and Tissue Levels - Part 2

Session Chairs: Lluís M. Mir, Université Paris-Saclay, Institut Gustave Roussy, CNRS, France; Michal Cifra, Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Lluís M Mir, Michal Cifra, Francesca Apollonio

11:30 - 11:50

Tu-K03-AM-22-1 Biological autoluminescence for real-time monitoring of yeast electroporation

Martin Bereta (1); Michal Teplan (2); Tomas Zakar (3); Hoang Vuviet (2); Michal Cifra (3); Djamel Eddine Chafai (4)
(1) Catholic University in Ruzomberok (Slovakia); (2) Institute of Measurement Science, Slovak Academy of Science (Slovakia); (3) Institute of Photonics and Electronics of the Czech Academy of Sciences (Czech Republic); (2) Institute of Measurement Science, Slovak Academy of Science (Slovakia); (3) Institute of Photonics and Electronics of the Czech Academy of Sciences (Czech Republic); (4) WPI-NanoLSI, Kanazawa University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PQJR3529>

11:50 - 12:10

Tu-K03-AM-22-2 Microsecond electric pulses as innovative treatment for spinal cord injury: lessons from RISEUP project (Invited)

Claudia Consales (1); Paolo Marracino (2); Franck André (3); Micaela Liberti (4); Manuel Monelon Pradas (5); Giorgia Innamorati (1); Loris Mannino (6); Francesca Apollonio (4); Micol Colella (4); Leslie Vallet (3); Sara Fontana (4); Noemi Dolciotti (4); Marina Sanchez

Petidier (3); Robin Mentheour (3); Fernando Gisbert Roca (5); Caterina Merla (1); Francesca Camera (1); Oscar Lucia Gil (7); Victoria Moreno Manzano (6)
(1) ENEA (Italy); (2) RISE Technology (Italy); (3) Université Paris-Saclay, Institut Gustave Roussy, CNRS (France); (4) Sapienza University of Rome (Italy); (5) Universitat Politècnica (Spain); (1) ENEA (Italy); (6) Centro de Investigación príncipe Felipe (CIPF) (Spain); (4) Sapienza University of Rome (Italy); (3) Université Paris-Saclay, Institut Gustave Roussy, CNRS (France); (4) Sapienza University of Rome (Italy); (3) Université Paris-Saclay, Institut Gustave Roussy, CNRS (France); (5) Universitat Politècnica (Spain); (1) ENEA (Italy); (7) Universidad de Zaragoza (Spain); (6) Centro de Investigación príncipe Felipe (CIPF) (Spain)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JFSH3197>

12:10 - 12:30

Tu-K03-AM-22-3 Virtual Cells Modeling for Advanced Microdosimetry in Bioelectromagnetics

Sara Fontana (1); Noemi Dolciotti (1); Francesca Apollonio (1); Micaela Liberti (1)
(1) Sapienza University of Rome (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UKEV6873>

Starting time between 11:30 - 12:29

Room A

AC: Metrology of electromagnetic and quantum sensors

Session Chairs: Nuno Borges Carvalho, Universidade de Aveiro, Portugal; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Nuno Carvalho, Carlos Ortiz, Pedro Miguel Cruz, Murray Early, Kumar Vijay Mishra, Taner Şengör

12:10 - 12:30

Tu-AC-AM-26-1 Bistatic Joint Radar-Communications with Rydberg Atomic receivers: Signal processing and Performance Analysis (Invited)

Wanghan Lv (1); Kumar Vijay Mishra (2); Jinsong Hu (3); Long Xiao (1)
(1) Nanjing Tech University (China); (2) University of Maryland (United States); (3) Fuzhou University (China); (1) Nanjing Tech University (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XORG2270>

Starting time between 12:30 - 13:29

Glass Room

ECR: ECR Lunch Meeting

Session Chairs: Fritz Bruce, Naval Research Laboratory, United States

Starting time between 13:30 - 14:39

Room A

A07-1: Space Metrology - Part 1

Session Chairs: Ping Jing-Song, National Astronomical Observatory/CAS, China

Session Conveners: Wang Qianjuan, Ping Jing-Song

13:40 - 14:00

Tu-A07-PM-05-1 Activities of the CCTF Task Group on Moon Timing

Pascale Defraigne (1); Mamoru Sekido (2); Patrizia Tavella (3); Frédéric Meynadier (3)
(1) Royal Observatory of Belgium (Belgium); (2) National Institute of Information and Communications Technology (Japan); (3) Bureau international des poids et mesures (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KUQE8775>

14:00 - 14:20

Tu-A07-PM-05-2 A Proposal for Lunar Time Metrology

Wang Qianjuan (1); Jingsong Ping (2); Min Liu (1)
(1) Beijing Orient Institute of Measurement and Test (China); (2) National Astronomical Observatories, Chinese Academy of Sciences (China); (1) Beijing Orient Institute of Measurement and Test (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UECX7044>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/r5qDi3w8RB55SfC>

14:20 - 14:40

Tu-A07-PM-05-3 The Latest Progress in the Research of Calendar on Moon

Ping Jin-Song (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VNJM4477>

Room B1

B09-7: Novel mathematical methods in electromagnetics - Part 7

Session Chairs: Yury Shestopalov, RTU MIREA — Russian Technological University, Russia; Kazuya Kobayashi, Chuo University, Japan

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

13:40 - 14:00

Tu-B09-PM-05-1 Exploiting symmetries in woodpile leaky-wave antennas (Invited)

Ludovica Tognolatti (1); Alessandro Romano (1); Paolo Baccarelli (1); Vakhtang Jandieri (2); Guido Valerio (3)

(1) Roma Tre University (Italy); (2) University of Duisburg-Essen (Germany); (3) GeePs laboratory, Université Paris-Saclay, CentraleSupélec, CNRS (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HJRM3710>

14:00 - 14:20

- Tu-B09-PM-05-2 Effect of Conductive Foam Placement on PIFA Coupling Voltage in Smart Handheld Devices**
Chen-Chung Chang (1); Chun-Huang Lee (2); Ruey-Beei Wu (1)
(1) National Taiwan University (Taiwan); (2) Universal Scientific Industrial company (Taiwan); (1) National Taiwan University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/BVLZ6664>

14:20 - 14:40

- Tu-B09-PM-05-3 Reconfigurable Holographic Antenna Based on Liquid-Crystal Technology at W-band with Leakage-Suppression**
Yoo Youngin (1); Ma Jun-Seok (1); Yoon Dong Ki (1); Park Seong-Ook (1)
(1) Korea Advanced Institute of Science and Technology (South Korea)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KWRJ7627>

Room B2

B20-1: Rays and beams in electromagnetics - Part 1

Session Chairs: Ludger Klinkenbusch, Kiel University, Germany; Giuliano Manara, University of Pisa, Italy
Session Conveners: Prabhakar Pathak, Ludger Klinkenbusch, Giuliano Manara

13:40 - 14:00

- Tu-B20-PM-05-1 Free-Space Propagation and Diffraction of a Complex-Source Beam**
Ludger Klinkenbusch (1); Andrea Michel (2); Giuliano Manara (3)
(1) Kiel University (Germany); (2) Department of Information Engineering, University of Pisa (Italy); (3) University of Pisa (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AFQH4905>

14:00 - 14:20

- Tu-B20-PM-05-2 A Uniform Theory of Diffraction for a Complex Source Beam Exciting a Curved Wedge (Invited)**
Prabhakar Pathak (1); Hsi-Tseng Chou (2); Robert Burkholder (1); Youngchel Kim (1)
(1) The Ohio State University (United States); (2) National Taiwan University (Taiwan); (1) The Ohio State University (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KKRC7493>

14:20 - 14:40

- Tu-B20-PM-05-3 3D Complex-Source Beam Diffraction by an Impedance Wedge (Invited)**
Ehud Heyman (1); Michael Katsav (1)
(1) Tel Aviv University (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GQBA2236>

Room D

D01-3: Multiphysics-based system design for future ICT devices and systems - Part 3

Session Chairs: Akihiko Hirata, Chiba Institute of Technology, Japan; Atsushi Kanno, Nagoya Institute of Technology, Japan
Session Conveners: Akihiko Hirata, Guillaume Ducournau

13:40 - 14:00

- Tu-D01-PM-05-1 Optimization of Wireless LAN Access Point Placement in 150 GHz Band MIMO Systems**
Akihiko Hirata (1); Keizo Cho (1)
(1) Chiba Institute of Technology (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VKQN3037>

Room E

E01-1: EMC Analytical and Numerical Modelling in Complex Systems - Part 1

Session Chairs: Chaouki Kasmî, Technology Innovation Institute, United Arab Emirates; Riccardo Trincherò, Politecnico di Torino, Turin, Italy, Italy

Session Conveners: Christophe Guiffaut, Chaouki Kasmî, Riccardo Trincherò

13:40 - 14:00

Tu-E01-PM-05-1 Preliminary Study on Compressed Vector-Valued KRR Surrogate Modeling in Small-Data Regimes

Nazanin Soleimani (1); Igor Simone Stievano (1); Riccardo Trincherò (1)
(1) Politecnico di Torino (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QRRL3073>

14:00 - 14:20

Tu-E01-PM-05-2 A 2-step Methodology for Electromagnetic Immunity Evaluation of a Pacemaker in the Vicinity of a Wireless Power Transfer System at 85 kHz

Paul Clérico (1); Lionel Pichon (1)
(1) GeePs laboratory, Université Paris-Saclay, CentraleSupélec, CNRS (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DKHH8351>

Room F

F01-1: Subsurface sensing/GPR - Part 1

Session Chairs: Motoyuki Sato, Tohoku University, Japan; Lilong Zou, Kingston University, United Kingdom

Session Conveners: Motoyuki Sato, Lorenzo Capineri, Lilong Zou

13:40 - 14:00

Tu-F01-PM-05-1 Subsurface Pipeline Detection in Drone-Borne P-Band SAR Data Based on U-Net

Lucas Ramos (1); Luciano Oliveira (1); Eduardo Freitas (1); Islem Yahi (1); Felix Vega (1); Jennifer Simonjan (1); Michal Barcis (1); Enrico Natalizio (1); Raffaele Mangiardi (2)
(1) Technology Innovation Institute (United Arab Emirates); (2) Regione Calabria (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SFJQ4214>

14:00 - 14:20

Tu-F01-PM-05-2 Investigation on Electromagnetic Wave Propagation inside the Great Pyramid

Motoyuki Sato (1); Hiromasa Kurokouchi (2); Sakuji Yoshimura (2)
(1) Tohoku University (Japan); (2) Higashi Nippon International University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CIES5302>

14:20 - 14:40

Tu-F01-PM-05-3 Multi-Sensor Integration for Remote Detection and Classification of Landmines

Lorenzo Capineri (1); Gennadiy Pochanin (2); Vadym Ruban (2); Tetiana Ogurtsova (2); Marco Bertini (1); Luca Bossi Bossi (1); Pierluigi Falorni (1); Fronefield Crawford (3); Timothy Bechtel (3)
(1) Università degli Studi di Firenze (Italy); (2) O.Ya Usikov Institute for Radiophysics and Electronics of the National Academy of Sciences (Ukraine); (3) Franklin and Marshall College (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TVKG8578>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/t3oeEkFJeo35mQ>

Room G1

G07-5: The High Latitude Atmosphere - Part 5

Session Chairs: [Ralph Latteck, Leibniz Institute of Atmospheric Physics, Germany](#)

Session Conveners: [Liliana Macotela, Wojciech Jacek Miloch, Giorgia De Franceschi, Ralph Latteck, Lucilla Alfonsi](#)

13:40 - 14:00

Tu-G07-PM-05-1 Investigation of Mesospheric Wave Activities Over Antarctica

Yucheng Zhao (1); Pierre-Dominique Pautet (1); Mike Taylor (1)

(1) *Utah State University (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/QLZY9148](https://doi.org/10.46620/URSIGASS26/QLZY9148)

14:00 - 14:20

Tu-G07-PM-05-2 STEVE: What We Know, What We Don't, and Why It Matters (Invited)

Bea Gallardo-Lacourt (1, 2); Larry Kepko (1); Toshi Nishimura (3); Emma L. Spanswick (4); Eric Donovan (4); Shannon Hill (5)

(1) *NASA Goddard Space Flight Center (United States)*; (2) *The Catholic University of America (United States)*; (3) *Boston University (United States)*; (4) *University of Calgary (Canada)*; (5) *University of Iowa (USA)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/SUOO2890](https://doi.org/10.46620/URSIGASS26/SUOO2890)

14:20 - 14:40

Tu-G07-PM-05-3 Plans for Multi-point HF Doppler Sounding of AGW/TIDs in Antarctic Peninsula Area

Jaroslav Urbář (1); Jiří Baše (1); Jaroslav Chum (1); Jan Rusz (1); Ondřej Kaller (1); František Hruška (1); Matyáš Gröschl (1); Andriy Zalizovski (2, 3); Artem Reznynchenko (3, 2); Oleksandr Bogomaz (4, 2); Andriy Sopin (2, 5); Oleksandr Koloskov (2, 5); Vladyslav Zalizovskyy (2); Ivaylo Nachev (6); Kamen Kozarev (7); Eduardo Perez Macho (8, 9); Emília Correia (8, 9)

(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (2) *Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine)*; (3) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (4) *Institute of Ionosphere (Ukraine)*; (5) *National Antarctic Scientific Center of Ukraine (Ukraine)*; (6) *Technical University-Sofia, Bulgaria (Bulgaria)*; (7) *Institute of Astronomy and National Astronomical Observatory (Bulgaria)*; (8) *Divisão de Clima Espacial - DICEP/INPE (Brazil)*; (9) *Centro de Rádio-Astronomia e Astrofísica Mackenzie - CRAAM (Brazil)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/OMRB7595](https://doi.org/10.46620/URSIGASS26/OMRB7595)

Room G2

G03-3: Ionosondes in their distributed, coordinated, advanced measurement modes - Part 3

Session Chairs: [Ivan Galkin, University of Massachusetts, United States](#); [Tobias Verhulst, Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence, Belgium](#)

Session Conveners: [Ivan Galkin, Tobias Verhulst](#)

13:40 - 14:00

Tu-G03-PM-05-1 Error considerations for ionospheric data assimilation – Representation errors and ionosonde error covariance

David Themens (1); Benjamin Reid (1); Sean Elvidge (1); Anthony McCaffrey (2); Matthew Brown (1); Emma-Claire Gurney (1); Thayyil Jayachandran (2); Luke Nugent (1)

(1) *University of Birmingham (United Kingdom)*; (2) *University of New Brunswick (Canada)*; (1) *University of Birmingham (United Kingdom)*; (2) *University of New Brunswick (Canada)*; (1) *University of Birmingham (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/PZTQ7742](https://doi.org/10.46620/URSIGASS26/PZTQ7742)

14:00 - 14:20

Tu-G03-PM-05-2 HF Communication Alerts with Real-time IRI and VTEC

Ivan Galkin (1); Ola Abu Elezz (2); Bushra Gul (3); Emma-Claire Gurney (4); Solomon Otto Lomotey (5); Adam Fron (6); Matthew Petrin (7); David Altadill (8); John Bosco Habarulema (9); Manuel Hernandez-Pajares (10); Dieter Bilitza (11, 12)
(1) *University of Massachusetts (United States)*; (2) *Helwan University (Egypt)*; (3) *University of Karachi (Pakistan)*; (4) *University of Birmingham (United Kingdom)*; (5) *University of Environment and Sustainable Development (Ghana)*; (6) *University of Warmia and Mazury in Olsztyn (Poland)*; (7) *Lowell Digisonde International, LLC (United States)*; (8) *Observatori de l'Ebre, University Ramon Llull - CSIC (Spain)*; (9) *South African National Space Center (South Africa)*; (10) *Universitat Politècnica de Catalunya (Spain)*; (11) *NASA Goddard Space Flight Center (United States)*; (12) *George Mason University (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OEPU5156>

14:20 - 14:40

Tu-G03-PM-05-3 MUF Index Variability and Its Impacts over Brazilian Stations During Intense Geomagnetic Storms

Laysa C A Resende (1); Ronan Chagas (1); Joaquim E. R. Costa (1); Clezio M. Denardini (1); Giorgio A. Picanço (2)
(1) *National Institute for Space Research (Brazil)*; (2) *University of Massachusetts (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JIMJ1419>

Room H

H03-4: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts - Part 4

Session Chairs: Allison Jaynes, *University of Iowa, United States*

Session Conveners: Allison Jaynes, Mark A. Clilverd

13:40 - 14:00

Tu-H03-PM-05-1 Lightning-induced electron precipitation observed in low-Earth orbit and at larger radial distances

Frantisek Nemec (1); Vaclav Linzmayer (1); Claudia Martinez-Calderon (2); Ondrej Santolik (3); Ivana Kolmasova (3)
(1) *Charles University (Czech Republic)*; (2) *Nagoya University (Japan)*; (3) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZIES9584>

14:00 - 14:20

Tu-H03-PM-05-2 Inner Magnetospheric Coupling to the D-Region Ionosphere via Energetic Electron Precipitation: a Multi-Instrument Perspective from March 2023

Mark A. Clilverd (1); Mai Mai Lam (1); Jade Reidy (1); Nigel Meredith (1); Andrew Kavanagh (2); Shin-ichiro Oyama (3); Tero Raita (4); Antti Kero (4); Jyrki Manninen (4); Craig Rodger (5)
(1) *Stanford University (United States)*; (2) *Koc University (Turkey)*; (3) *University of Massachusetts (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MVMY3993>

14:20 - 14:40

Tu-H03-PM-05-3 Inner radiation belt dynamics driving the formation of auroral-like sporadic E layers (Esa') over the South American Magnetic Anomaly (SAMA) region

Ligia Alves Da Silva (1); Laysa Resende (1); Luis Eduardo Vieira (1); Livia Alves (1); José Paulo Marchezi (1); Joaquim Costa (1); Hui Li (2)
(1) *National Institute for Space Research (Brazil)*; (2) *National Space Science Center, Chinese Academy of Sciences (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GLOU1650>

Room J1

J07-5: Front-end systems - Part 5

Session Chairs: Jin Fan, *National Space Science Center, Chinese Academy of Sciences, China*

Session Conveners: Jin Fan, *Maria Kovaleva, Paulo José de Aguiar Simões*

13:40 - 14:00

Tu-J07-PM-05-1 Wide-field astronomy with the Horizon Europe project RADIOBLOCKS: electromagnetic analysis of a phased array feed and implementation of a digital backend

Paola Di Ninni (1); Renzo Nesti (1); Giuseppe Pupillo (2); Alessandro Cabras (3); Roberto Caocci (3); Simone Chiarucci (1); Paolo Maxia (3); Andrea Melis (3); Pierluigi Ortu (3); Silvio Pilia (3); Tonino Pisanu (3); Massimiliano Belluso (4); Sergio Billotta (4)
(1) *National Institute for Astrophysics - Arcetri Astrophysical Observatory (Italy)*; (2) *National Institute for Astrophysics - Institute of Radio Astronomy (Italy)*; (3) *National Institute for Astrophysics - Astronomical Observatory of Cagliari (Italy)*; (4) *National Institute for Astrophysics - Arcetri Astrophysical Observatory (Italy)*; (3) *National Institute for Astrophysics - Astronomical Observatory of Cagliari (Italy)*; (4) *National Institute for Astrophysics - Catania Astrophysical Observatory (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CQVE7812>

14:00 - 14:20

Tu-J07-PM-05-2 The development of a next generation phased array receiver for the ASKAP telescope

Alex Dunning (1); Simon Mackay (1); Aidan Hotan (1); Mark Bowen (1); Jithin Athimannil (1); Yoon Chung (1); Jeganathan Kanapathippillai (1); Peter Roush (1); Sean Severs (1); Anjelica Williams (1)
(1) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SVYD7391>

14:20 - 14:40

Tu-J07-PM-05-3 A Hierarchical Calibration Framework for the Phased Array Feed System of the Meridian Project Phase II IPS Telescope (Invited)

Junhui Peng (1); Jin Fan (2); Hailin Cao (1); Wei Wang (2); Yihua Yan (2)
(1) *Chongqing University (China)*; (2) *National Space Science Center, Chinese Academy of Sciences (China)*; (1) *Chongqing University (China)*; (2) *National Space Science Center, Chinese Academy of Sciences (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CITL1722>

Room J2

J04-3: Time-domain radio astronomy - Part 3

Session Chairs: Karen Perez, SETI Institute, United States

Session Conveners: Kejia Lee, Jayanta Roy, Maura Pilia, Jason Hessels

13:40 - 14:00

Tu-J04-PM-05-1 Empirical Completeness Analysis for Fast Radio Bursts and Radio Transient Surveys

Yash Bhusare (1); Yogesh Maan (1); Ankit Narolia (2, 1)

(1) National Centre for Radio Astrophysics TIFR (India); (2) Central University of Haryana (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JDDL5807>

14:00 - 14:20

Tu-J04-PM-05-2 The TRON pipeline: wide-field image-plane transient surveys with MeerKAT

Oleg Smirnov (1, 2)

(1) Rhodes University (South Africa); (2) SARAO (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XCKM5231>

Room K

K05 & K06: Human Exposure to Electromagnetic Fields: Characterization, Modeling, and Perception

Session Chairs: Ilkka Laakso, Aalto University, Finland; Li Kun, The University of Electro-Communications, Japan; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Kun Li, Jafar Keshvari, Kensuke Sasaki, Maxim Zhadobov, A. Hirata, Ilkka Laakso, Y. Diao, L. Giaccone

13:40 - 14:00

Tu-K05 & K06-PM-05-1 Towards in-vivo characterization of the reflectivity of the human skin in the 110-300GHz band

Giovanni Costa (1); Samuel John (1); Margarethus Maarten Paulides (1, 2); Shihab Al-Daffaie (1); Arno Thielens (3)

(1) Eindhoven University of Technology (Netherlands); (2) Erasmus University Medical Center Cancer Institute (Netherlands); (3) City University of New York (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JHWY4750>

14:00 - 14:20

Tu-K05 & K06-PM-05-2 Assessment of Human Exposure in Sub-Terahertz 6G Systems with Intelligent Reflecting Surfaces

Sławomir Hausman (1); Korbel Piotr (1)

(1) Lodz University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EOQO3107>

14:20 - 14:40

Tu-K05 & K06-PM-05-3 Experimental Measurements and Computational Modeling of Magnetic Stimulation Perception Thresholds

Otto Kangasmaa (1); Ilkka Laakso (1)

(1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RZVO3805>

Room P

CTut: Commission C Tutorial

Session Chairs: *Kumar Vijay Mishra, URSI Commission C Chair*

13:40 - 14:40

Tu-CTut-PM-05-1 Polarimetric Weather Radar: Applications and Advances (Invited)

Merhala Thurai (1)

(1) *Colorado State University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SFXN4208>

Starting time between 13:30 - 14:39

Room D

D03-1: Energy harvesting and wireless power technologies - Part 1

Session Chairs: *Giacomo Paolini, University of Bologna, Italy; Valentina Palazzi, University of Perugia, Italy*

Session Conveners: *Giacomo Paolini, Valentina Palazzi*

14:00 - 14:20

Tu-D03-PM-07-1 A 10 GHz GCPW Circular Polarized Elliptical Antenna with Slot-Based Harmonic Suppression for Rectenna Application

Leonardo Pierantozzi (1); Matteo Ribeca (1); Giacomo Schiavolini (1); Luca Roselli (1);

Federico Alimenti (1); Valentina Palazzi (1)

(1) *University of Perugia (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YTJH2639>

14:20 - 14:40

Tu-D03-PM-07-2 The EVE CURiE experiment concept: harvesting electric energy from space radiation (Invited)

Marcel Szubartowski (1); Marek Pąśko (1); Dorota Kazibudzka (1); Aleksander Tytus (1);

Paulina Kucharczyk (1); Dominika Pytlak (1); Selim Mucharski (1); Natalia Kwaśna (1); Anna

Keller (1); Michał Krajewski (1); Małgorzata Stacherczak (1); Justyna Obrępańska (1); Paweł

Polanowski (1); Julia Dollani (1); Monika Marek (1); Karolina Wiśniewska (1); Tomasz A.

Miś (2); Damian Grabowski (1)

(1) *Warsaw University of Technology (Poland)*; (2) *Space Research Centre of the Polish*

Academy of Sciences (Poland); (1) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JXRR5687>

Starting time between 14:40 - 15:39

Room A

A07-2: Space Metrology - Part 2

Session Chairs: *Ping Jing-Song, National Astronomical Observatory/CAS, China; Sen Gupta Amitava, North Cap University, India*

Session Conveners: *Wang Qianjuan, Ping Jing-Song*

14:40 - 15:00

Tu-A07-PM-11-1 Design of an Analog Charge Source for Space Radiation Calibration (Invited)

Haini Jiao (1); Haifeng Gao (1)

(1) *Beijing Orient Institute of Measurement and Test (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DZPC1241>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/EotWKGOWWaLiAkC>

Room B1

B09-8: Novel mathematical methods in electromagnetics - Part 8

Session Chairs: Yury Shestopalov, RTU MIREA — Russian Technological University, Russia; Kazuya Kobayashi, Chuo University, Japan

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yury Shestopalov

14:40 - 15:00

Tu-B09-PM-11-1 Analysis of Electromagnetic Field Sensing Using Patch-Antenna-Based Metasurface (Invited)

Satoshi Yagitani (1); Erik Madyo Putro (1, 2); Tomohiko Imachi (1); Mitsunori Ozaki (1)
(1) Kanazawa University (Japan); (2) National Research and Innovation Agency (Indonesia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LVZM6593>

Room B2

B20-2: Rays and beams in electromagnetics - Part 2

Session Chairs: Ludger Klinkenbusch, Kiel University, Germany; Giuliano Manara, University of Pisa, Italy

Session Conveners: Prabhakar Pathak, Ludger Klinkenbusch, Giuliano Manara

14:40 - 15:00

Tu-B20-PM-11-1 Pulsed Curved Beam Design using Pulsed Hot Spots (Invited)

Timor Melamed (1)
(1) Ben Gurion University of the Negev (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/OWES9846>

15:00 - 15:20

Tu-B20-PM-11-2 Near-Field Power Transmission Analysis with Asymptotic Friis Formula for Circular and Rectangular Apertures

Ilkyu Kim (1); Jeong-Hae Lee (2)
(1) Department of Electrical Electronics Engineering, Sejong Cyber University (South Korea); (2) Department of Electronics and Electrical Engineering, Hongik University (South Korea)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ENFZ6664>

Room E

E01-2: EMC Analytical and Numerical Modelling in Complex Systems - Part 2

Session Chairs: Chaouki Kasmi, Technology Innovation Institute, United Arab Emirates; Riccardo Trincherio, Politecnico di Torino, Turin, Italy, Italy

Session Conveners: Christophe Guiffaut, Chaouki Kasmi, Riccardo Trincherio

14:40 - 15:00

Tu-E01-PM-11-1 Efficient Electromagnetic Susceptibility Characterization of Shielded Enclosures for Dynamic Excitation Scenario Using the SIE-MoM-DD Method

Anna Grytsko (1); Słobodzian Piotr M. (1)
(1) Wrocław University of Science and Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/QZDS5866>

Room F

F01-2: Subsurface sensing/GPR - Part 2

Session Chairs: Motoyuki Sato, Tohoku University, Japan; Lilong Zou, Kigston University, United Kingdom

Session Conveners: Motoyuki Sato, Lorenzo Capineri, Lilong Zou

14:40 - 15:00

Tu-F01-PM-11-1 Multi-layer model for Landmine Detection Imaging by GPR

Motoyuki Sato (1, 1)
(1) Tohoku University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/EJUA6944>

Room G1

G12-1: Open Session - Part 1

Session Chairs: Bruce Fritz, *Naval Research Laboratory, United States*; Keith Groves, *Boston College, United States*

Session Conveners: Keith Groves, Sean Elvidge, Dario Sabbagh, Bruce Fritz, David Themens

14:40 - 15:00

Tu-G12-PM-11-1 What Controls the Angular Dependence of 150-km Echoes? Insights from Jicamarca High-Power Large-Aperture Radar Observations

Jorge Chau (1); Meers Oppenheim (2); Roberto Flores (3); Karim Kuyeng (3); Danny Scipion (3)

(1) *Leibniz Institute of Atmospheric Physics at the University of Rostock (Germany)*; (2) *Boston University (United States)*; (3) *Radio Observatorio de Jicamarca, Instituto Geofísico del Perú (Peru)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/YCXF6165](https://doi.org/10.46620/URSIGASS26/YCXF6165)

15:00 - 15:20

Tu-G12-PM-11-2 Sporadic-E Layer Electrodynamics Revealed from Combined SoundingRocket and VHF Radar Observations

Robert Pfaff (1); Erhan Kudeki (2); Miguel Larsen (3); Julio Urbina (4); James Clemmons (5)

(1) *NASA Goddard Space Flight Center (United States)*; (2) *Univ. of Illinois (United States)*; (3) *Clemson University (United States)*; (4) *The Pennsylvania State University (United States)*; (5) *University of New Hampshire (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/AEJN6755](https://doi.org/10.46620/URSIGASS26/AEJN6755)

Room G2

GH: Planetary Space Weather

Session Chairs: Bruno Nava, *International Centre for Theoretical Physics, Italy*

Session Conveners: Alessandro Ippolito, Bruno Nava, Hanna Rothkaehl, Yuki Harada

14:40 - 15:00

Tu-GH-PM-11-1 Comets as a space weather laboratory and measurement suite (Invited)

Charlotte Goetz (1); Ruben Doyle-Morgan (1); Herbert Gunell (2); Eva Krämer (2); Tomas Karlsson (3); Anja Möslinger (2); Cyril Simon-Wedlund (4); Martin Volwerk (5)

(1) *Northumbria University (United Kingdom)*; (2) *Umeå University (Sweden)*; (3) *KTH Royal Institute of Technology (Sweden)*; (4) *Umeå University (Sweden)*; (5) *University of Graz (Austria)*; (5) *Space Research Institute (Austria)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/FDLB2081](https://doi.org/10.46620/URSIGASS26/FDLB2081)

15:00 - 15:20

Tu-GH-PM-11-2 Observing Earth's Plasma Environment from Lunar Surface

Claudio Cesaroni (1); Luca Spogli (1); Marco Guerra (1); Rebecca Ghidoni (1); Vincenzo Ventriglia (1); Alex Minetto (2); Andrea Nardin (2); Lucilla Alfonsi (1); Fabio Dovi (2)

(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *Politecnico di Torino (Italy)*; (1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *Politecnico di Torino (Italy)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/DZIV8249](https://doi.org/10.46620/URSIGASS26/DZIV8249)

Room H

H03-5: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts - Part 5

Session Chairs: Allison Jaynes, University of Iowa, United States

Session Conveners: Allison Jaynes, Mark A. Clilverd

14:40 - 15:00

Tu-H03-PM-11-1 Identifying key differences in coupling between the radiation belts, and the ionosphere via energetic electron precipitation during three geomagnetic storms.

Mark A. Clilverd (1); Mai Mai Lam (1); Nigel Meredith (1); Janos Lichtenberger (2); Vincent Maget (3); Tero Raita (4)

(1) British Antarctic Survey (United Kingdom); (2) Eotvos University (Hungary); (3) Onera (France); (4) University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XMPX3383>

Room J1

J07-6: Front-end systems - Part 6

Session Chairs: Jin Fan, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Jin Fan, Maria Kovaleva, Paulo José de Aguiar Simões

14:40 - 15:00

Tu-J07-PM-11-1 Demonstration of the efficient production of a highly sensitive radio astronomical receiver.

Christoph Kasemann (1); Rafael Castenholz (1); Stefan Heyminck (1); Michael Kuntschev (1); Michael Nalbach (1); Gundolf Wieching (1)

(1) Max-Planck-Institut für Radioastronomie (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ILNZ9801>

15:00 - 15:20

Tu-J07-PM-11-2 Autonomous Sun-Tracking with Scalar Power Feedback using Deep Reinforcement Learning

Christos Alexopoulos (1); Padelis Papadopoulos (1)

(1) Aristotle University of Thessaloniki (Greece)

Link to paper: <https://doi.org/10.46620/26-0113>

Room K

K03 & K14: Design and Dosimetric Characterization of EM Exposure Systems for Bioimaging

Session Chairs: Lluís M. Mir, Université Paris-Saclay, Institut Gustave Roussy, CNRS, France; Michal Cifra, Institute of Photonics and Electronics of the Czech Academy of Sciences, Czech Republic; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Lluís Mir, Michal Cifra, Francesca Apollonio, Lars Ole-Fichte, Emily Porter, Kun Li

14:40 - 15:00

Tu-K03 & K14-PM-11-1 Design and Dosimetric Characterization of a Millimeter-Wave Exposure System for Real-Time Calcium Imaging Experiments

Carmen Pisano (1); Noemi Dolciotti (1); Alessandra Paffi (1); Micaela Liberti (1, 2); Francesca Apollonio (3, 2)

(1) ICeMB DIET - Sapienza University of Rome (Italy); (2) Center for Life Nano and Neuro-Science, Fondazione Istituto Italiano di Tecnologia (IIT) (Italy); (3) Sapienza University of Rome (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PUYY9190>

15:00 - 15:20

Tu-K03 & K14-PM-11-2 Sub-terahertz exposure system for advanced optical microscopy

Přemysl Klajs (1); Daniel Havelka (1); Michal Cifra (1)
(1) *Institute of Photonics and Electronics of the Czech Academy of Sciences (Czech Republic)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GCAR9904>

Starting time between 14:40 - 15:39

Room D

D08-1: Recent Advances in Electronics and Photonics (Open Session) - Part 1

Session Chairs: *Tahsin Akalin, Université de Lille, France; Atsushi Kanno, Nagoya Institute of Technology, Japan*

Session Conveners: *Atsushi Kanno, Tahsin Akalin*

15:00 - 15:20

Tu-D08-PM-13-1 Design and Initial Evaluation of the RRAM-Based PUF Architecture

Kamil Ber (1); Kacper Sobolewski (1); Adam Pawłowski (1); Jakub Ślubowski (1); Tomasz Borejko (1); Witold Pleskacz (1); Piotr Wiśniewski (1)
(1) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CVZJ3659>

Starting time between 15:40 - 16:39

Room H

HTut: Commission H Tutorial

Session Chairs: *Craig J. Rodger, URSI Commission H Chair*

15:40 - 16:40

Tu-HTut-PM-17-1 Causes and consequences of temporal variability of wave-particle interactions in Earth's outer radiation belt (Invited)

Clare Watt (1)
(1) *Northumbria University (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ISWT3445>

Room P

WIRS: WIRS - Women in Radio Science

Session Chairs: *Sana Salous, University of Durham, United Kingdom*

Foyer - Poster Area A

P-A-1: Poster Session - Commission A - Part 1

Session Chairs: *Amitava Sen Gupta, URSI Commission A Chair*

15:40 - 17:40

Tu-P-A-PM-17-1 UAV-Assisted Backscatter System for Low-Power Tag Identification and Monitoring

Paulo Capitão (1); Pedro Pinho (1); Nuno Borges Carvalho (1)
(1) *Instituto de Telecomunicações de Aveiro (Portugal)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WYSH1249>

15:40 - 17:40

Tu-P-A-PM-17-2 Design and Calibration a Subarray of a Ku-Band LHCP Phase Array for 6G Non-Terrestrial Networks

Monli Chang (1); Ding-Bing Lin (1); Cheng-Yu Hsieh (1); Yin-Wei Hsu (1); Yu-Hsiang Cheng (2)

(1) *National Taiwan University of Science and Technology (Taiwan)*; (2) *National Taiwan University (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QUBK2985>

15:40 - 17:40

Tu-P-A-PM-17-3 Measurement of rapeseed (*Brassica napus* L.) moisture content based on the complex dielectric permittivity spectrum

Jacek Majcher (1); Agnieszka Szyplowska (2); Małgorzata Budzeń (2); Marcin Kafaski (2); Andrzej Wilczek (2); Arkadiusz Lewandowski (3)

(1) *Lublin University of Technology (Poland)*; (2) *Institute of Agrophysics, Polish Academy of Sciences (Poland)*; (3) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SEII4933>

15:40 - 17:40

Tu-P-A-PM-17-4 Moisture-permittivity calibration functions with correction terms for selected soil properties

Jacek Majcher (1); Agnieszka Szyplowska (2); Małgorzata Budzeń (2); Marcin Kafaski (2); Arkadiusz Lewandowski (3); Andrzej Wilczek (2)

(1) *Lublin University of Technology (Poland)*; (2) *Institute of Agrophysics, Polish Academy of Sciences (Poland)*; (3) *Warsaw University of Technology (Poland)*; (2) *Institute of Agrophysics, Polish Academy of Sciences (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IHCZ1095>

15:40 - 17:40

Tu-P-A-PM-17-5 UAV-Enabled Microwave WPT for Wireless Sensor Networks Toward a Digital Twin Layer

Henrique Figueiredo Chaves (1, 2); Nuno Borges Carvalho (1, 2)

(1) *Universidade de Aveiro (Portugal)*; (2) *Instituto de Telecomunicações de Aveiro (Portugal)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TFSC9258>

15:40 - 17:40

Tu-P-A-PM-17-6 Fiber-optic reference signal distribution for a quantum test bed

Miho Fujieda (1); Motohiro Kumagai (1); Mikio Fujiwara (1)

(1) *National Institute of Information and Communications Technology (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/APYU2443>

15:40 - 17:40

Tu-P-A-PM-17-7 Near-Field Focusing Calibration of Phased Arrays Using a Kronecker-Product Excitation

Jake Liu (1)

(1) *National Taipei University of Technology (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MEOD5231>

15:40 - 17:40

- Tu-P-A-PM-17-8 Towards Experimental Validation of Pinching Antenna Systems Using Leaky Coaxial Cables**
Adam Beacom (1); Krushna Varikuntla (1); Simon Cotton (1); Muhammad Ali Babar Abbasi (1); Okan Yurduseven (1)
(1) *Queen's University Belfast (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/NXBG2547>

Foyer - Poster Area C

P-C-1: Poster Session - Commission C - Part 1

Session Chairs: *Kumar Vijay Mishra, URSI Commission C Chair*

15:40 - 17:40

- Tu-P-C-PM-17-1 A Ku-Band Absorptive SPDT Switch with Double Shunt Technique in GaAs 0.18- μ m PIN Diodes for 6G FR3 Application**
Jun-Han Lin (1); Yunshan Wang (1); Chan-Shin Wu (2); Tzu-Hung Chen (2); Huei Wang (1)
(1) *National Taiwan University (Taiwan)*; (2) *Ultraband Technologies (Taiwan)*; (1) *National Taiwan University (Taiwan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BDDW7616>

15:40 - 17:40

- Tu-P-C-PM-17-3 5G-NR Interference Indirect Detection Approach for the Deep Neural Networks in Radio Channel Estimation**
Krzysztof K. Cwalina (1); Piotr Rajchowski (1); Jaroslaw Sadowski (1)
(1) *Department of Radio Communication Systems and Networks, Faculty of Electronics, Telecommunications and Informatics, Gdansk University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AQDC7095>

15:40 - 17:40

- Tu-P-C-PM-17-4 Vertical Handover Between Terrestrial and Satellite Links in 6G-and-Beyond Systems: An ML-Based Method**
Małgorzata Wasilewska (1); Michał Sybis (1)
(1) *Poznan University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AUAN6063>

15:40 - 17:40

- Tu-P-C-PM-17-6 Investigating the Influence of Interfering Signals on the 5G-NR Radio Interface**
Piotr Rajchowski (1); Krzysztof Cwalina (1)
(1) *Gdansk University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WGTB8443>

15:40 - 17:40

- Tu-P-C-PM-17-7 D-RoF and A-RoF solutions for access point disaggregation in 802.11 networks**
Zbigniew Zakrzewski (1)
(1) *Bydgoszcz University of Science and Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FOWA5286>

15:40 - 17:40

- Tu-P-C-PM-17-8 Contactless Hand Tremor Monitoring Based on 24 GHz Frequency-Modulated Continuous-Wave Radar**
Sung-Nien Hsieh (1); Wei Sheng Peng (2)
(1) *National Taiwan University of Science and Technology (Taiwan)*; (2) *YTTEK Company (Taiwan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WPZS5628>

15:40 - 17:40

Tu-P-C-PM-17-9 Contactless Respiratory Monitoring and Pattern Analysis Using Microwave Radar and Granular Computing

Bożena Kostek (1); Andrzej Czyżewski (1)
(1) *Gdansk University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QMGF4954>

15:40 - 17:40

Tu-P-C-PM-17-10 Modelling d.c. characteristics of SiC-PiN diodes with self-heating taken into account (Invited)

Damian Bisewski (1); Janusz Zarębski (1)
(1) *Gdynia Maritime University (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/HSBL2171>

15:40 - 17:40

Tu-P-D-PM-17-1 Unequal Wilkinson Power Divider as Feeding Network for Antenna Arrays in 2.4 GHz ISM Band

Chongwen Zhu (1); Grzegorz Bogdan (1); Yevhen Yashchysyn (1)
(1) *Warsaw University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JRWV8038>

Foyer - Poster Area E

P-E-1: Poster Session - Commission E - Part 1

Session Chairs: *Carlo Carobbi, URSI Commission E Chair*

15:40 - 17:40

Tu-P-E-PM-17-1 Broadband Electromagnetic Attenuation Assessment With a Reconfigurable Testbed Using a Multi-Point Method

Chang Hee Hyoung (1); Jong Hwa Kwon (1)
(1) *Electronics and Telecommunications Research Institute (South Korea)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZQAS1276>

15:40 - 17:40

Tu-P-E-PM-17-2 Investigation of lightning preliminary breakdown stage as a time precursor of ground flashes occurrence recorded in the Warsaw region

Anna Odzimek (1); Baranski Piotr (1); Morawski Marek (2)
(1) *Institute of Geophysics Polish Academy of Sciences (Poland)*; (2) *Space Research Centre of the Polish Academy of Sciences (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SEXV3637>

15:40 - 17:40

Tu-P-E-PM-17-3 Progress on Radio Environment Protection at Ali Observatory

Haiyan Zhang (1); Hao Hu (1); Shijie Huang (1); Yu Wang (1); Guifang Wu (2)
(1) *National Astronomical Observatories, Chinese Academy of Sciences (China)*; (2) *China Electric Power Research Institute (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KDRZ9620>

15:40 - 17:40

Tu-P-E-PM-17-4 Spectrum Sensing for Cognitive Radio Applications

Lars Vonk (1, 2); Grzegorz Bogdan (2)
(1) *VonkProgramming (Netherlands)*; (2) *Warsaw University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AJNX1309>

15:40 - 17:40

Tu-P-E-PM-17-5 DEIMv2 for Radar Composite Jamming Recognition in Complex Electromagnetic Environments

Wang Jiaxiang (1); Bo Juntian (1); Li Wei (1); Jia Fuxue (1); Shen Xinyi (2); Yu Xi (1); Liu Fengkai (1); Zhang Jiahao (1); Meng Jin (1)
(1) *Naval University of Engineering (China)*; (2) *Wuhan University (China)*; (1) *Naval University of Engineering (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GLAO7784>

15:40 - 17:40

Tu-P-E-PM-17-6 Joint Design of Transmit Waveform and Mismatched Filter as a Countermeasure Method Against Non-cooperative Interrupted Sampling Repeater Jamming

Fuxue Jia (1); Mingliang Xie (1); Jiaxiang Wang (1); Xinyi Shen (2, 3); Juntian Bo (1); Fengkai Liu (1); Jiahao Zhang (1)
(1) *Naval University of Engineering (China)*; (2) *National Key Laboratory of Electromagnetic Energy (China)*; (3) *Wuhan University (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XBIY3927>

15:40 - 17:40

Tu-P-E-PM-17-7 RFI Mitigation for 3.3 GHz CH Observations at Arecibo

Anish Roshi (1); Liam Gallagher (1); Hector Ramos (1); Papia Tanjia (1); Hannah Peter (1); Mitch Burnett (2); Wei Liu (3); Dan Werthimer (3); Allison Smith (4); Emmanuel Butler (4); Rafael Rodríguez-Solís (4)
(1) *University of Central Florida (United States)*; (2) *Florida Space Institute, University of Central Florida (United States)*; (3) *University of California (United States)*; (4) *University of Puerto Rico (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JPAZ2031>

15:40 - 17:40

Tu-P-E-PM-17-8 Bidirectional Tri-band Reflective Common-Mode Filter for Differential Front Ends

Cheng-Yi Zhuang (1); Ding-Bing Lin (2); Raymond Daguio Serafica (2)
(1) *National Taipei University of Technology (Taiwan)*; (2) *National Taiwan University of Science and Technology (Taiwan)*

Link to paper: <https://doi.org/10.46620/26-0096>

Foyer - Poster Area G

P-G-1: Poster Session - Commission G - Part 1

Session Chairs: [Keith Groves, URSI Commission G Chair](#)

15:40 - 17:40

Tu-P-G-PM-17-1 ATRIO-Antarctic Thermosphere Retrieved from Ionospheric Observations

Loredana Perrone (1); Carlo Scotto (1); Bruno Nava (1); Alessandro Ippolito (1); Dario Sabbagh (1)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GQWU5985>

15:40 - 17:40

Tu-P-G-PM-17-2 Verifying the height measurement of a DPS-4D ionosonde / Digisonde using ionization traces left by meteors

Csilla Szárnya (1); Zbyšek Mošna (2); Livia Deme (1, 3); József Vinkó (4, 3); Petra Koucká Knížova (2); Kateřina Podolská (2); Daniel Kouba (2); Veronika Barta (1)
(1) *HUN-REN Institute of Earth Physics and Space Science (Hungary)*; (2) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (3) *University of*

Szeged (Hungary); (4) HUN-REN Research Centre for Astronomy and Earth Sciences (Hungary)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DEEH1137>

15:40 - 17:40

Tu-P-G-PM-17-3 New Iononet Stations

Achille Zirizzotti (1); Umberto Sciacca (1); Enrico Zuccheretti (1); Carlo Scotto (1); Loredana Perrone (1); Tiera Latinen (2); Haris Haralambous (3); Pierdaveide Coisson (4)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (2) Finnish Meteorological Institute (Finland); (3) Frederick University (Cyprus); (4) Institut de physique du globe de Paris (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AWHJ6717>

15:40 - 17:40

Tu-P-G-PM-17-4 First Year of RfSIONO1: Methods and Results of Ionogram Analysis

Elias Hirvonen (1, 2); Michael Fletcher (3); Tomas Tallkvist (3); Markku Lehtinen (3); Marko Suovula (3); Mikael Nousiainen (3); Kirsti Kauristie (1); Tiera Laitinen (1); Ari-Matti Harri (1)
(1) Finnish Meteorological Institute (Finland); (2) Aalto University (Finland); (3) RF Shamans Ltd (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QVZM8321>

15:40 - 17:40

Tu-P-G-PM-17-5 Multi – instrumental comparative study of Travelling Ionospheric Disturbances caused by the pre-Boris cold front, Boris Cyclone and a geomagnetic storm on 08, 09 and 12 September, 2024

Veronika Barta (1); Sergii Panasenko (2); Marco Guerra (3); Jaroslav Chum (2); Katerina Potuznikova (2); Tobias Verhulst (4); Jens Mielich (5); Dalia Buresova (2); David Altadill (6); Petra Koucka Knizova (2); Daniel Kouba (2); Claudio Cesaroni (3)
(1) HUN-REN Institute of Earth Physics and Space Science (Hungary); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (3) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (4) Royal Meteorological Institute of Belgium & Solar Terrestrial Centre of Excellence (Belgium); (5) Leibniz Institute of Atmospheric Physics (Germany); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (6) Observatori de l'Ebre, University Ramon Llull - CSIC (Spain); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (3) Istituto Nazionale di Geofisica e Vulcanologia (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VZIW7434>

15:40 - 17:40

Tu-P-G-PM-17-6 Integrating GNSS Data Across the Arctic: The PAGINA Project

Emanuele Pica (1); Vincenzo Romano (1); Massimo Viola (1); Carlo Marcocci (1); Luca Spogli (1); Claudio Cesaroni (1); Nicola Guglielmi (1); P.T. Jayachandran (2); Chris Watson (2); Richard Chadwick (2); Kirsti Kauristie (3); Petri Koskimaa (3)
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Link to paper: <https://doi.org/10.46620/URSIGASS26/NYAH1529>

15:40 - 17:40

Tu-P-G-PM-17-7 Antarctic Geospace and ATmosphere reseArch (AGATA) Scientific Research Programme - The first initiatives

Wojciech Jacek Miloch (1); Alfonsi Lucilla (2); De Franceschi Giorgia (2)
(1) University of Oslo (Norway); (2) Istituto Nazionale di Geofisica e Vulcanologia (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NCSZ5707>

15:40 - 17:40

Tu-P-G-PM-17-8 Equatorial Plasma Bubbles monitoring using ROTI index from COSMIC-2 observations

Ana Lucia Christovam (1); Fabricio S. Prol (2); Marcio T. A. H. Muella (1)
(1) *University of Vale of Paraíba (Brazil)*; (2) *Finnish Geospatial Research Institute (Finland)*; (1) *University of Vale of Paraíba (Brazil)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WXNR4352>

15:40 - 17:40

Tu-P-G-PM-17-9 Comparison of modelling methods for HF-band trans-ionospheric Radio Signal Propagation

Nicolas Joyeux--Alcindor (1); Xavier Baumann (1); Vincent Fabbro (1); Isabelle Dahman (2); Yvan Galkin (3, 4); Anna Belehaki (5); Wojciech Jarmolowski (6); Manuel Hernández-Pajares (7); Paweł Wielgosz (6); German Olivares Pulido (7); Angeliki Thanassou (5)
(1) *Onera (France)*; (2) *French Procurement agency (France)*; (3) *University of Massachusetts (United States)*; (4) *Borealis Global (Bulgaria)*; (5) *National Observatory of Athens (Greece)*; (6) *University of Warmia and Mazury in Olsztyn (Poland)*; (7) *Universitat Politècnica de Catalunya (Spain)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AWOF4417>

15:40 - 17:40

Tu-P-G-PM-17-10 Electron Density Estimation over the MLT in the Baltic Sea Region

Gokul Suresh (1); Toralf Renkwitz (1); Jorge Chau (1)
(1) *Leibniz Institute of Atmospheric Physics (IAP) (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BJJO8776>

15:40 - 17:40

Tu-P-G-PM-17-11 An application of MUSIC and norm-constrained Capon methods to locate the direction-of-arrival of meteor trail and Es echoes

Zhen-Xiong You (1); C.-L. Su (2); Y.-H. Chu (2)
(1) *China Medical Univeristy (Taiwan)*; (2) *National Central University (Taiwan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KACY4588>

15:40 - 17:40

Tu-P-G-PM-17-12 Study of Ionospheric Perturbations From a Global Network of VLF Antennas

Patrick Galopeau (1); Mohammed Boudjada (2); Hans Eichelberger (2); Ashanthi Maxworth (3); Pier F. Biagi (4, 5); Giovanni Nico (6)
(1) *LATMOS-CNRS (France)*; (2) *Space Research Institute (Austria)*; (3) *University of Southern Maine (United States)*; (4) *Department of Physics, University of Bari (Italy)*; (5) *University of Bari (Italy)*; (6) *Italian National Research Council (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/TXLO2781>

15:40 - 17:40

Tu-P-G-PM-17-13 Space Weather Effects on VLF/LF Sub-ionospheric Waveguides

Aleksandra Nina (1); Hans U. Eichelberger (2); Nikola Veselinovic (1); Bruno P. Besser (2); Manfred Stachel (2); Giovanni Nico (3); Pier F. Biagi (4); Mohammed Y. Boudjada (2)
(1) *Institute of Physics (Serbia)*; (2) *Space Research Institute (Austria)*; (1) *Institute of Physics (Serbia)*; (2) *Space Research Institute (Austria)*; (3) *IAC-CNR (Italy)*; (4) *Department of Physics, University of Bari (Italy)*; (2) *Space Research Institute (Austria)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SJUU3567>

15:40 - 17:40

Tu-P-G-PM-17-14 On the detection of anomalies in VLF time series: an application of the Knorr algorithm

Giovanni Nico (1); Rocco Miglionico (2); Katia Parisi (2); Alessio Esposito (2); Pier Biagi (2)
(1) IAC-CNR (Italy); (2) DIAN S.r.l. (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WPYH7387>

15:40 - 17:40

Tu-P-G-PM-17-15 On Nonlinear Plasma Mechanisms Contributing to Frequency Drift Variability in Jovian Decametric Emission

Galina Litvinenko (1, 2); Barbara Atamaniuk (2); Hanna Rothkaehl (2); Volodymyr Ryabov (3)

(1) Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine); (2) Space Research Centre of the Polish Academy of Sciences (Poland); (3) Future University Hakodate (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FMHS4002>

Foyer - Poster Area J

P-J-1: Poster Session - Commission J - Part 1

Session Chairs: *Stefan Wijnholds, URSI Commission J Chair*

15:40 - 17:40

Tu-P-J-PM-17-1 Joint China-Malaysia Study on Solar Radio Emissions at Mid-Low Latitudes

Li Mudi (1); Dong Liang (1); Ping Jingsong (2); Zainal Abidin Zamri (3); Chen Junyi (1); Wang Mingyuan (2); Yahaya Mohamad Fareez Haiqal (3); Mohd Ghazali Mohd Ifwat (3); Li Wenxiao (2)

(1) Yunnan Astronomical Observatory, Chinese Academy of Sciences (China); (2) National Astronomical Observatories, Chinese Academy of Sciences (China); (3) Universiti Malaya (Malaysia); (1) Yunnan Astronomical Observatory, Chinese Academy of Sciences (China); (2) National Astronomical Observatories, Chinese Academy of Sciences (China); (3) Universiti Malaya (Malaysia); (2) National Astronomical Observatories, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZNEI5396>

15:40 - 17:40

Tu-P-J-PM-17-2 The Power of Combination: Single-Dish and Interferometric Studies

Anna Bartkiewicz (1)

(1) Institute of Astronomy, Nicolaus Copernicus University (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BYBU9105>

15:40 - 17:40

Tu-P-J-PM-17-3 Co-located Antenna Phase-Referencing powering the Chinese VLBI Network and Beyond

Ming Zhang (1)

(1) Xinjiang Astronomical Observatory, CAS (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VORO5701>

15:40 - 17:40

Tu-P-J-PM-17-4 The Fringe Detection of Blazar AO0235+164 in the Lunar Orbit VLBI Experiment

Lei Liu (1)

(1) Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YUBT8445>

15:40 - 17:40

- Tu-P-J-PM-17-5 A Post-correlation Processing System for Weak Space VLBI Signals in the LOVEX Project**
Ping Rui (1); Fengxian Tong (1); Lei Liu (1); Juan Zhang (1); Weimin Zheng (1); Li Tong (1)
(1) *Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VUEG9387>

15:40 - 17:40

- Tu-P-J-PM-17-6 A Broadband Photonic Channelizer for Ground- and Space-Based Radio Astronomy Systems**
Anish Roshi (1); Shahebul Hassan (1); Peter Delfyett (1)
(1) *University of Central Florida (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VQCM1288>

15:40 - 17:40

- Tu-P-J-PM-17-7 Independent Monitoring of UT1 Variations by Two-way Measurement of LRR**
Wenxiao Li (1); Jinsong Ping (1); Mingyuan Wang (1); Jing Sun (1); Songtao Han (2); Lue Chen (2)
(1) *National Astronomical Observatories, Chinese Academy of Sciences (China)*; (2) *Beijing Aerospace Control Center (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QCDU4736>

15:40 - 17:40

- Tu-P-J-PM-17-8 The in-orbit testing and operation status of LOVEX**
Renjie Zhu (1)
(1) *Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MKVO9907>

15:40 - 17:40

- Tu-P-J-PM-17-9 A Visibility-Domain Transient Injection Framework for Validating TRON Pipeline**
Isaac Sihlangu (1, 2); Tariq Blecher (1); Landman Bester (1); Oleg Smirnov (1)
(1) *South African Radio Astronomy Observatory (South Africa)*; (2) *Rhodes University (South Africa)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AFFC9992>

15:40 - 17:40

- Tu-P-J-PM-17-10 Optimizing Feeds on Radio Telescope Reflector Antennas for Receiving Sensitivity versus Efficiency**
Robert Lehmensiek (1, 2); Dirk De Villiers (2)
(1) *NRAO (United States)*; (2) *Stellenbosch University (South Africa)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XAGZ8478>

15:40 - 17:40

- Tu-P-J-PM-17-11 An ultra-wideband quadruple-ridged flared horn for the VLBA reflector system**
Robert Lehmensiek (1, 2); Dirk De Villiers (2)
(1) *NRAO (United States)*; (2) *Stellenbosch University (South Africa)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LOGJ7696>

15:40 - 17:40

- Tu-P-J-PM-17-12 Low-cost RF over Fiber developed for radio astronomy and other low frequency analog signal transport**
Lesley Goudbeek (1)
(1) *ASTRON (Netherlands)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FWZA2095>

15:40 - 17:40

- Tu-P-J-PM-17-13 Development of Local Oscillator Module for ALMA Band 4+5 Receiver**
Chau-Ching Chiong (1); Chen Chien (1); Yuh-Jing Hwang (1); Chin-Ting Ho (1); Hsuan-Wei Huang (2); Sheng-Fu Zhuang (2); Chien-Hao Hsiao (3); Hsin-Yu Chen (3); Wan-Hsuan Chang (3); Yan-Chen Yu Wen (3); Hong-Yeh Chang (3); Huei Wang (2)
(1) Academia Sinica (Taiwan); (2) National Taiwan University (Taiwan); (3) National Central University (Taiwan); (2) National Taiwan University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KCOD1240>

15:40 - 17:40

- Tu-P-J-PM-17-14 The Wideband Low-Loss Orthomode Transducer Design for the FAST Core Array**
Yue Ma (1); Yiqing Tian (2); See Chan Hwang (3); Jinglong Yu (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China); (2) Beijing University of Posts and Telecommunications (China); (3) Edinburgh Napier University (United Kingdom); (1) National Astronomical Observatories, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SQXM1309>

15:40 - 17:40

- Tu-P-J-PM-17-15 RFSoc based Beamforming Backend for PAF Receiver of FAST Telescope**
Dongliang Liu (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SSCI3135>

15:40 - 17:40

- Tu-P-J-PM-17-16 Development of a 16-Channel S-Band Mezzanine Board for RADIOBLOCKS RFSoc-Based Digital Backends**
Alessandro Cabras (1); Pierluigi Ortu (1); Roberto Caocci (1); Andrea Melis (1); Simone Chiarucci (1); Paola Di Ninni (1); Giuseppe Pupillo (1); Renzo Nesti (1); Tonino Pisanu (1); Paolo Maxia (1); Silvio Pilia (1); Massimiliano Belluso (1); Sergio Billotta (1)
(1) Istituto Nazionale di Astrofisica (INAF) (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CZRK8404>

15:40 - 17:40

- Tu-P-J-PM-17-17 A High-Speed Data Reception Strategy for Large-Scale Phased Array Feeds Based on DPK**
Yuanqi Guo (1); Hengqian Gan (1); Haiyan Zhang (1); Yan Zhu (1); Dongliang Liu (1); Rurong Chen (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YMM4839>

15:40 - 17:40

- Tu-P-J-PM-17-18 Next Generation Very Large Array – Digital Backend Design and Performance**
Matthew Schiller (1); Cory Zywno (1)
(1) National Radio Astronomy Observatory (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LXYJ9069>

15:40 - 17:40

- Tu-P-J-PM-17-19 Long-term Monitoring of 6.7 GHz Methanol Masers using the Torun 32 m Radio Telescope**
Ashwin Varma (1)
(1) Institute of Astronomy, Nicolaus Copernicus University (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SDPX4848>

15:40 - 17:40

Tu-P-J-PM-17-20 Propagation Signatures in Jovian DAM: Linking Radio Astronomy and Ionospheric Diagnostics

Galina Litvinenko (1, 2); Hanna Rothkaehl (2); Volodymyr Ryabov (3); Vyacheslav Zakharenko (1); Andrij Zalizovski (1, 2)
(1) *Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine)*; (2) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (3) *Future University Hakodate (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/GXOR3800>

15:40 - 17:40

Tu-P-J-PM-17-21 The LOFAR PL610 observations during the solar eclipses and related observed ionospheric effects.

Helena Ciechowska (1); Mariusz Pożoga (1); Barbara Matyjasiak (1); Marcin Grzesiak (1); Dorota Przepiórka-Skup (1); Thi Phung (1); Łukasz Tomasik (1); Hanna Rothkaehl (1)
(1) *Centrum Badan Kosmicznych Polskiej Akademii Nauk (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YUVG5428>

15:40 - 17:40

Tu-P-J-PM-17-22 Between the Earth and Cosmos: Ionospheric Research with LOFAR

Dorota Dorota Przepiórka-Skup (1); Barbara Matyjasiak (1); Hanna Rothkaehl (1); Mariusz Pożoga (1); Maaijke Mevius (2); Katarzyna Beser (3); Gareth Dorrian (4); Leszek Błaszkiwicz (5)
(1) *Centrum Badan Kosmicznych Polskiej Akademii Nauk (Poland)*; (2) *ASTRON (Netherlands)*; (3) *New Jersey Institute of Technology (United States)*; (4) *SERENE - University of Birmingham (United Kingdom)*; (5) *University of Warmia and Mazury in Olsztyn (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IRXB8059>

15:40 - 17:40

Tu-P-K-PM-17-1 FPGA-Accelerated Deep Learning for Wireless Brain-Computer Interfaces in Biomedical Applications

Sarfaraz Ahmed (1); Niamat Hussain (2); Faiza Sabir (3)
(1) *Aston University (United Kingdom)*; (2) *University of Glasgow (United Kingdom)*; (3) *Kyonggi University (Republic of Korea)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UJCA2228>

Starting time between 17:40 - 20:00

Room G1

G1WG: G.1 working group "INAG" business meeting

Session Chairs: To be announced

Wednesday, 19 August 2026

Starting time between 08:00 - 09:29

Room A

A05-1: Electrical and Electromagnetic Metrology including Quantum Standards - Part 1

Session Chairs: Amitava Sen Gupta, North Cap University, India; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Satyakesh Dubey, Thomas Kleine-Ostmann, You Li, Diego Luna, Giovanna Signorile, Murray Early

08:30 - 08:50

We-A05-AM-04-1 Process Method Research and Application for Enhancing the Comprehensive Performance of High-Precision Metal Foil Resistors (Invited)

Shaohua Chen (1, 2, 3); Hezhen Yu (1, 3); Chao Sun (1, 3); Ying Wang (1, 3); Zhiyuan Hu (1, 3); Yinyu Wei (4)

(1) Beijing Orient Institute of Measurement and Test (China); (2) Tsinghua University (China); (3) Key Laboratory of Space Metrology Technology, State Administration for Market Regulation (China); (4) Xi'an Institute of Space Radio Technology (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YUYQ7134>

08:50 - 09:10

We-A05-AM-04-2 Comparison of S-P-S-P and S-P-D-F schemes for the electric field strength measurement for 300GHz wave

Motohiro Kumagai (1); Shigeo Nagano (1); Shin'ichio Hayashi (1); Norihiko Sekine (1)

(1) National Institute of Information and Communications Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UBHF3148>

09:10 - 09:30

We-A05-AM-04-3 Analysis of the Impact of DAC Bit Width on Phase Resolution in DDS-Based Phase Difference Signal Synthesis

Ranran Lü (1); Li You (1); Jingjing Li (1); Pan Pan (1)

(1) Beijing Orient Institute of Measurement and Test (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BKMZ5767>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/zNERmNH9jr9wf8W>

Room B1

B09-9: Novel mathematical methods in electromagnetics - Part 9

Session Chairs: Guido Lombardi, Politecnico di Torino, Italy; Kazuya Kobayashi, Chuo University, Japan

Session Conveners: Kazuya Kobayashi, Guido Lombardi, Yuri Shestopalov

08:30 - 08:50

We-B09-AM-04-1 Angular Momentum in Ray Optical Description of Cylindrical Waveguide Modes (Invited)

Ayhan Altintas (1)

(1) Bilkent University (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YNJN1414>

08:50 - 09:10

We-B09-AM-04-2 Scattering of Electromagnetic Waves in Inhomogeneous Rectangular Cylinders Composed of Rectangular Dielectric Cylinders (Invited)

Tsuneki Yamasaki (1)

(1) *Nihon University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RWRN9816>

09:10 - 09:30

We-B09-AM-04-3 Study on Spectral Domain Approach to Electromagnetic Plane-Wave Scattering from Large Number of Equally Spaced Circular Cylinders (Invited)

Koki Watanabe (1)

(1) *Fukuoka Institute of Technology (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EZLA3985>

Room B2

B15-3: Metamaterials and metasurfaces to control and tailor wave propagation - Part 3

Session Chairs: Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy

Session Conveners: Victor Pacheco-Peña, Carlo Rizza

08:30 - 08:50

We-B15-AM-04-1 TEM-wave propagation through a periodic metamaterial composite in an elliptic coaxial waveguide (Invited)

Balwan Rana (1); Mariana Dalarsson (1)

(1) *KTH Royal Institute of Technology (Sweden)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZUMW5434>

08:50 - 09:10

We-B15-AM-04-2 Theory of Linear Frequency Generation at a Space-Time Interface

Alessandra Contestabile (1); Maria Antonietta Vincenti (2); Giuseppe Castaldi (3); Michael Scalora (2); Marcello Ferrera (4); Vincenzo Galdi (3); Carlo Rizza (1)

(1) *University of L'Aquila (Italy)*; (2) *University of Brescia (Italy)*; (3) *University of Sannio (Italy)*; (4) *Institute of Photonics and Quantum Sciences, Heriot-Watt University SUPA (United Kingdom)*; (3) *University of Sannio (Italy)*; (1) *University of L'Aquila (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MSRB9318>

09:10 - 09:30

We-B15-AM-04-3 Can spacetime modulations emulate anisotropic time interfaces?

Andrew M. Naylor (1); Victor Pacheco-Peña (1)

(1) *Newcastle University (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IWVD4961>

Room C

C10-1: Advances in Inverse Synthetic Aperture Radar (ISAR) for Target Imaging and Recognition - Part 1

Session Chairs: Ajeet Kumar, Radar and Surveillance Systems (RaSS), National Laboratory of CNIT, Italy; Hossein Amir, CNIT, Italy; Rakesh Sharma, National Institute of Technology Hamirpur, India
Session Conveners: Ajeet Kumar, Amir Hossein Oveis, Rakesh Sharma

08:30 - 08:50

We-C10-AM-04-1 A Novel Miniaturized Self-Triplexing Antenna Based on SIW Rectangular Cavity for Sub-Terahertz Communications

Rusan Kumar Barik (1); Rathod Rajender (2); Ajeet Kumar (3); Daniele Rossi (2); Slawomir Koziel (4, 5)
(1) Department of Electronics and Communication Engineering, Christ Deemed To Be University (India); (2) Department of Information Engineering, University of Pisa (Italy); (3) Radar and Surveillance Systems (RaSS), National Laboratory of CNIT (Italy); (4) Department of Engineering, Reykjavik University (Iceland); (5) Faculty of Electronics, Telecommunications and Informatics, Gdansk University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/DUUE5398>

08:50 - 09:10

We-C10-AM-04-2 Lunar Crater Edge and Ejecta Detection using Chandrayaan-2 Dual Frequency Synthetic Aperture Radar Data

Nitish Kumar (1); Virendra Singh Rathore (1); Ajeet Kumar (2); Akhouri Pramod Krishna (1)
(1) Birla Institute of Technology, Mesra (India); (2) CNIT (National Inter-University Consortium for Telecommunications) (Italy); (1) Birla Institute of Technology, Mesra (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UCNX7851>

09:10 - 09:30

We-C10-AM-04-3 Reconfigurable mmWave FMCW Radar for RaSS (Radar and Surveillance Systems) Applications (Invited)

Ajeet Kumar (1)
(1) CNIT (National Inter-University Consortium for Telecommunications) (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CUTX7358>

Room D

D03-2: Energy harvesting and wireless power technologies - Part 2

Session Chairs: Giacomo Paolini, University of Bologna, Italy; Valentina Palazzi, University of Perugia, Italy
Session Conveners: Giacomo Paolini, Valentina Palazzi

08:30 - 08:50

We-D03-AM-04-1 A Fully Passive RFID Platform for Simultaneous Temperature and Strain Monitoring in EV Battery Packs

Valentina Palazzi (1); Badar Muneer (1, 2); Federico Alimenti (1); Paolo Mezzanotte (1); Luca Roselli (1)
(1) University of Perugia (Italy); (2) Mehran University of Engineering and Technology (Pakistan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZDWU9390>

08:50 - 09:10

We-D03-AM-04-2 Conformal Near-Field Wireless Power Transfer for Battery-Free Optogenetic Neural Stimulation in Murine Models

Giacomo Paolini (1); Giulia Battistini (1); Elisa Augello (1); Diego Masotti (1); Alessandra Costanzo (1)
(1) University of Bologna (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/OCDT9359>

09:10 - 09:30

We-D03-AM-04-3 Quasioptical Wireless Power Transfer: a State-of-the-Art

Ricardo Pereira (1); Nuno Borges Carvalho (1)
(1) *Instituto de Telecomunicações de Aveiro (Portugal)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UWNP5081>

Room E

EFJ-1: RFI Detection, Characterization and Mitigation in Remote Sensing and Radio Astronomy - Part 1

Session Chairs: de Mattheais Paolo, University of Maryland Baltimore County, United States; Tzioumis Tasso, CSIRO, Australia

Session Conveners: Flávio Miguel da Silva Jorge, Paolo de Mattheais, Tasso Tzioumis

08:30 - 08:50

We-EFJ-AM-04-1 Validating RFI Monitor Gain Stability for the Purpose of RF Site Characterization

Nicholas Bruce (1); Charl Baard (1); Abraham Otto (1)
(1) *National Research Council Canada (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZQXN8974>

08:50 - 09:10

We-EFJ-AM-04-2 Radio Frequency Interference Roadmap for the Dominion Radio Astrophysical Observatory

Abraham Otto (1); Nicholas Bruce (1); Charl Baard (1)
(1) *National Research Council Canada (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ECXE4164>

09:10 - 09:30

We-EFJ-AM-04-3 Dominion Radio Astrophysical Observatory RFI/EMC Test Facility

Abraham Otto (1); Charl Baard (1); Rob Messing (1); David Del Rizzo (1); Nicholas Bruce (1)
(1) *National Research Council Canada (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IHGW7251>

Room F

FK-1: Body Area Networks – Propagation Channel Modelling and EMF Exposure - Part 1

Session Chairs: Sławomir Ambroziak, Gdańsk University of Technology, Poland; Kamran Sayrafian, NIST, United States

Session Conveners: Sławomir Ambroziak, Maxim Zhadobov, Kamran Sayrafian

08:30 - 08:50

We-FK-AM-04-1 Radio Channel Measurements at mmWave for Body Area Networks in Public Transport Vehicles (Invited)

Sebastian Górski (1); Sławomir Ambroziak (1); Filipe Cardoso (2); Manuel Ferreira (2); Mariella Särestöniemi (3); Luis Correia (4)
(1) *Gdansk University of Technology (Poland)*; (2) *Instituto Politécnico de Setúbal, Escola Superior de Tecnologia de Setúbal (Portugal)*; (3) *University of Oulu (Finland)*; (4) *IST/INESC-INOV, University of Lisbon (Portugal)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IIAH5297>

08:50 - 09:10

We-FK-AM-04-2 Analysis of Human Body Shadowing for mmWave Communications (Invited)

Łukasz Januszkiewicz (1)
(1) *Lodz University of Technology, Institute of Electronics (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ELZA1764>

09:10 - 09:30

We-FK-AM-04-3 Metasurface-based communication for in-body nano-networks (Invited)

Krzysztof Skos (1); Pawel Kulakowski (1)

(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GVVC9776>

Room G1

G05-3: Thermosphere-Ionosphere Coupling Under Disturbed and Quiet Geomagnetic Conditions - Part 3

Session Chairs: [Loredana Perrone, Istituto Nazionale di Geofisica e Vulcanologia, Italy](#); [Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy](#)

Session Conveners: [Dario Sabbagh, Loredana Perrone, Mamoru Ishii](#)

08:30 - 08:50

We-G05-AM-04-1 Multiscale Drivers of Sporadic-E (Es) Layer Variability Across the Low-Latitude South American Sector

Marcio Muella (1); Pedro Fontes (2); Laysa Resende (3); Peter Muka (1); Paulo Fagundes (1)

(1) Universidade do Vale do Paraíba (Brazil); (2) Instituto Federal do Maranhão (Brazil); (3) Instituto Nacional de Pesquisas Espaciais (Brazil); (1) Universidade do Vale do Paraíba (Brazil)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YVHZ2085>

08:50 - 09:10

We-G05-AM-04-2 Role of Large-Scale Traveling Ionospheric Disturbances in the Positive Storm Phase Observed by the Millstone Hill Radar and GNSS TEC Measurements

Gopika P. Geethakumari (1); Anita T. Aikio (1); Lei Cai (1); Heikki Vanhamäki (1); Ilkka I. Virtanen (1); Anthea J. Coster (2); Astrid Maute (3); Aurélie Marchaudon (4); Pierre-Louis Blelly (4)

(1) University of Oulu (Finland); (2) MIT Haystack Observatory (United States); (3) University of Colorado Boulder (United States); (4) IRAP, Université de Toulouse, CNRS, CNES (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FXFF4469>

09:10 - 09:30

We-G05-AM-04-3 AENeAS v2.0: A Community Framework for Coupled Ionosphere-Thermosphere Modelling and Validation

Jack Brown (1); David Themens (1); Sean Elvidge (1); Matthew Brown (1); Benjamin Reid (1)

(1) University of Birmingham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SVDZ9578>

Room G2

G04-1: International Reference Ionosphere: Improvement, Validation and Usage - Part 1

Session Chairs: [Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland](#)

Session Conveners: [Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak](#)

08:30 - 08:50

We-G04-AM-04-1 Recent Improvements, Validations and Uses of the International Reference Ionosphere

Dieter Bilitza (1); Vladimir Truhlik (2)

(1) George Mason University (United States); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QREY6847>

08:50 - 09:10

We-G04-AM-04-2 Assessing the IRI-2020 topside ionosphere models through COSMIC-1 and -2 radio occultation profiles collocated with ionosondes

Alessio Pignalberi (1); Haris Haralambous (2, 3); Dieter Bilitza (4); Pierdaviide Coisson (5); Bruno Nava (6); Michael Pezzopane (1); Fabricio Prol (7); Artem Smirnov (8, 9); David Themens (10, 11); Chao Xiong (12)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *Frederick University (Cyprus)*; (3) *Frederick Research Center (Cyprus)*; (4) *George Mason University (United States)*; (5) *Institut de physique du globe de Paris (France)*; (6) *The Abdus Salam International Centre for Theoretical Physics (Italy)*; (7) *Finnish Geospatial Research Institute (Finland)*; (8) *GFZ German Research Centre for Geosciences (Germany)*; (9) *Ludwig Maximilian University of Munich (Germany)*; (10) *University of Birmingham (United Kingdom)*; (11) *University of New Brunswick (Cambodia)*; (12) *Wuhan University (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WEHL1325>

09:10 - 09:30

We-G04-AM-04-3 IRI-2020 F-region and Topside Electron Density during Quiet Space Weather Periods: Performance, Swarm-based Bias Correction, and Testing Inclusion of Atmospheric Wave Indices

Vladimír Truhlík (1); Jaroslav Urbář (1); Šimon Mackovjak (2); Carsten Schmidt (3); Patrick Hannawald (3); Jaroslav Chum (1); Petra Koucká Knížová (1); Lisa Küchelbacher (3); Sabine Wüst (3)
(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (2) *Institute of Experimental Physics (Slovakia)*; (3) *German Aerospace Center (DLR) (Germany)*; (1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (3) *German Aerospace Center (DLR) (Germany)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CXEJ7877>

Room H

H04-1: Recent advances in geospace research from wide-range to multi-point observations - Part 1

Session Chairs: Jyrki Manninen, *University of Oulu, Finland*; Yoshiya Kasahara, *Kanazawa University, Japan*

Session Conveners: Jyrki Manninen, Jean-Francois Ripoll, Yoshiya Kasahara, Hanna Rothkaehl

08:30 - 08:50

We-H04-AM-04-1 Fast Radiation Belt Acceleration Bursts During the August 2018 Geomagnetic Storm Revealed by the GPS Constellation

L. Olifer (1); S.K. Morley (2); I.R. Mann (1); L.G. Ozeke (1); M.M.H. Kalliokoski (3); M.G. Henderson (2); M. R. Carver (4); A. Hoover (2)
(1) *University of Alberta (Canada)*; (2) *Los Alamos National Laboratory (United States)*; (1) *University of Alberta (Canada)*; (3) *Japan Aerospace Exploration Agency (Japan)*; (2) *Los Alamos National Laboratory (United States)*; (4) *Carver Scientific (United States)*; (2) *Los Alamos National Laboratory (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FAAO4065>

08:50 - 09:10

We-H04-AM-04-2 Energetic Electron Precipitation Driven by Multiple Types of Whistler-Mode Waves: Integrating REAL Observations and Modeling (Invited)

Wen Li (1); Qianli Ma (1); Longzhi Gan (1); Luisa Capannolo (1); Robyn Millan (2); Tom Sotirelis (3); John Sample (4); Aleksandr Ukhorskiy (3)
(1) *Boston University (United States)*; (2) *Dartmouth College (United States)*; (3) *Johns Hopkins University Applied Physics Laboratory (United States)*; (4) *Montana State University (United States)*; (3) *Johns Hopkins University Applied Physics Laboratory (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XPVK5081>

Room J2

J05-1: Wide-field radio astronomy and survey science - Part 1

Session Chairs: Betsey Adams, SKA Observatory, South Africa

Session Conveners: Michael Kriele, Isabella Prandoni, Betsey Adams

08:30 - 08:50

We-J05-AM-04-1 MeerKAT Reveals Evidence of a Radio Megahalo at GHz frequency

Swarna Chatterjee (1); Kenda Knowles (1)

(1) Rhodes University (South Africa)

Link to paper: <https://doi.org/10.46620/26-0116>

08:50 - 09:10

We-J05-AM-04-2 High-Fidelity MeerKAT UHF Observations of the Sgr A Complex

Hertzog Bester (1, 2)

(1) South African Radio Astronomy Observatory (South Africa); (2) Rhodes University (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SVSV2091>

09:10 - 09:30

We-J05-AM-04-3 Second Data Release of the MWA IPS Survey

Angie Waszewski (1, 2); John Morgan (2); Ron Ekers (3); Rajan Chhetri (3)

(1) University of Newcastle (Australia); (2) CSIRO (Australia); (3) CSIRO (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WRHV9253>

Room K

K07-1: Monitoring EMF Exposure from emerging technologies - Part 1

Session Chairs: Kun Li, The University of Electro-Communications, Japan; Paul Lagouanelle, LTCl, Télécom Paris, Institut Polytechnique de Paris, France

Session Conveners: Joe Wiart, Teruo Onishi, Sam Aerts, Kun Li

08:30 - 08:50

We-K07-AM-04-1 A Study on RF-EMF Assessment of 5G Shared Base Stations in Subway Tunnels using Ray-Tracing Simulation

Tanaka Haruto (1); Kun Li (1)

(1) The University of Electro-Communications (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MJVZ2771>

08:50 - 09:10

We-K07-AM-04-2 Comparing Quad Band Uniaxial and 5G Triaxial RF-EMF Exposure Sensors at 3.5 GHz

Jeroen Van der Straeten (1, 2); Han Van Bladel (1, 2); Kenneth Deprez (1, 2); Wout Joseph (1, 2); Günter Vermeeren (1, 2)

(1) Ghent University (Belgium); (2) Interuniversity Microelectronics Centre (imec) (Belgium)

Link to paper: <https://doi.org/10.46620/26-0048>

09:10 - 09:30

We-K07-AM-04-3 Evaluation of Electromagnetic Exposure to Signal-to-Interference Ratio in Downlink Cellular Networks

Minh-Huy Nguyen (1); Shanshan Wang (1); Joe Wiart (1)

(1) Chaire C2M, LTCl, Télécom Paris, Institut Polytechnique de Paris (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WXQH4454>

Starting time between 08:00 - 09:29

Room J1

J09-1: Post-correlation signal processing: Big Data and AI - Part 1

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands*

Session Conveners: *Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo*

08:50 - 09:10

We-J09-AM-06-1 RADPS: Radio Astronomy Data Processing System

Jan-Willem Steeb (1); Jeffrey Kern (1); Amanda Kepley (1); Eric Koch (1)
(1) *NRAO (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FDGY4066>

09:10 - 09:30

We-J09-AM-06-2 Pyralysis: An Open-Source Framework for Big Data Radio Interferometry

Miguel Carcamo (1, 2); Vicente Mieres (1); Renato Gomez (1); Valeria Guidotti (2); Simon Cassasus (3); Fernando Rannou (1); Pablo Roman (1)
(1) *Universidad de Santiago de Chile (Chile)*; (2) *Data Observatory (Chile)*; (3) *Universidad de Chile, Departamento de Astronomia (Chile)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WEZY7960>

Starting time between 09:30 - 10:29

Room A

A05-2: Electrical and Electromagnetic Metrology including Quantum Standards - Part 2

Session Chairs: *Amitava Sen Gupta, North Cap University, India; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico*

Session Conveners: *Satyakesh Dubey, Thomas Kleine-Ostmann, You Li, Diego Luna, Giovanna Signorile, Murray Early*

09:30 - 09:50

We-A05-AM-10-1 Assessment of Complex Electromagnetic Parameters Using Precise Sample Length Estimation for Homogeneous Solid Materials

Prachi Tyagi (1, 2); Aijaz Ahmed (2); Asheesh Kumar Sharma (2); Satya Kesh Dubey (1, 2)
(1) *Academy of Scientific and Innovative Research (AcSIR) (India)*; (2) *CSIR-National Physical laboratory (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IJQD7421>

Room B1

B09-0: Novel mathematical methods in electromagnetics - Part 10

Session Chairs: *Guido Lombardi, Politecnico di Torino, Italy; Kazuya Kobayashi, Chuo University, Japan*

Session Conveners: *Kazuya Kobayashi, Guido Lombardi, Yuri Shestopalov*

09:30 - 09:50

We-B09-AM-10-1 Diffraction of E- and H-Polarized Plane Waves by a Finite Parallel-Plate Waveguide Cavity with PEC Loading

Tong Zhang (1); Kazuya Kobayashi (1)
(1) *Chuo University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GMGE1534>

09:50 - 10:10

We-B09-AM-10-2 Method of integral summation identities for the analysis of TE-polarized wave diffraction in a diaphragmed waveguide with dielectric insert (Invited)

Garnik Abgaryan (1); Yury Shestopalov (2); Maria Ostropikova (1); Nadezhda Stavitskaia (1)
(1) Bauman Moscow State Technical University (Russia); (2) RTU MIREA — Russian Technological University (Russia); (1) Bauman Moscow State Technical University (Russia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SFDT4846>

Room B2

B15-4: Metamaterials and metasurfaces to control and tailor wave propagation - Part 4

Session Chairs: Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy

Session Conveners: Victor Pacheco-Peña, Carlo Rizza

09:30 - 09:50

We-B15-AM-10-1 Toward Sparse Distribution of Reconfigurable Unit Cells for 3D Beam Shaping with Metasurfaces

Chen Niu (1); Maximilian Yonza (1); Mario Phaneuf (1); Puyan Mojabi (1)
(1) University of Manitoba (Canada)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UVFX8690>

09:50 - 10:10

We-B15-AM-10-2 Wideband Time Modulated FSS for Doppler Radar Countermeasure

Baisakhi Bandyopadhyay (1); Kumar Vaibhav Srivastava (1)
(1) Indian Institute of Technology Kanpur (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UHFA5314>

Room C

C10-2: Advances in Inverse Synthetic Aperture Radar (ISAR) for Target Imaging and Recognition - Part 2

Session Chairs: Ajeet Kumar, Radar and Surveillance Systems (RaSS), National Laboratory of CNIT, Italy; Hossein Amir, CNIT, Italy; Rakesh Sharma, National Institute of Technology Hamirpur, India

Session Conveners: Ajeet Kumar, Amir Hossein Oveis, Rakesh Sharma

09:30 - 09:50

We-C10-AM-10-1 A Novel Low Side-lobe Level Radar Phased Array Antenna Using Two-Way Array Factor

Rajender Rathod (1); Ajeet Kumar (2); Daniele Rossi (1)
(1) Department of Information Engineering, University of Pisa (Italy); (2) Radar and Surveillance Systems (RaSS), National Laboratory of CNIT (Italy); (1) Department of Information Engineering, University of Pisa (Italy)
Link to paper: <https://doi.org/10.46620/26-0008>

09:50 - 10:10

We-C10-AM-10-2 Conceptual Development of Multi-Target Multi-Beam CC-OFDM MIMO ISAR

Hasna Suranto (1); Gamantyo Hendrantoro (1); Helmut Paulitsch (2); Wolfgang Bösch (2); Devy Kuswidiastuti (1)
(1) Institut Teknologi Sepuluh Nopember (Indonesia); (2) Institute of Microwave and Photonics Engineering, Graz University of Technology (Austria); (1) Institut Teknologi Sepuluh Nopember (Indonesia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FYBA9436>

Room D

D07-2: Passive and active microwave components - Part 2

Session Chairs: Giacomo Paolini, University of Bologna, Italy; Ilona Piekarz, AGH University of Krakow, Poland

Session Conveners: Giacomo Paolini, Ilona Piekarz

09:30 - 09:50

We-D07-AM-10-1 On the Via-less Realization of a 3-dB Coupled-Line Directional Coupler in Single-Layer Microstrip

Jakub Sorocki (1); Ilona Piekarz (1)
(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CDTV2252>

09:50 - 10:10

We-D07-AM-10-2 Improving Doherty Structure Power Amplifier Design for Ka-Band Applications with FeedForward Technique

Koray Can Kaya (1); Salih Mehmed Bostan (1); İsmail Şişman (2)
(1) Bursa Technical University (Turkey); (2) Yeditepe University (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NIRB7657>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/qrLbeLr7qSpzA7s>

Room E

EFJ-2: RFI Detection, Characterization and Mitigation in Remote Sensing and Radio Astronomy - Part 2

Session Chairs: de Matthaeis Paolo, University of Maryland Baltimore County, United States; Tzioumis Tasso, CSIRO, Australia

Session Conveners: Flávio Miguel da Silva Jorge, Paolo de Matthaeis, Tasso Tzioumis

09:30 - 09:50

We-EFJ-AM-10-1 Advanced RFI Monitoring at ALMA: Tracking the Evolution of the Chajnantor Radio Environment

Giorgio Siringo (1)
(1) ALMA (Chile)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SGHZ3775>

09:50 - 10:10

We-EFJ-AM-10-2 Design of a Satellite Constellation Interference Assessment Software

Haiyan Zhang (1); Shijie Huang (1); Hao Hu (1); Yu Wang (1); Cheng Yang (2)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China); (2) Tianjin University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RGKT6707>

Room F

FK-2: Body Area Networks – Propagation Channel Modelling and EMF Exposure - Part 2

Session Chairs: Sławomir Ambroziak, Gdańsk University of Technology, Poland; Kamran Sayrafian, NIST, United States

Session Conveners: Sławomir Ambroziak, Maxim Zhadobov, Kamran Sayrafian

09:30 - 09:50

We-FK-AM-10-1 Miniaturized Implantable Antenna Operating in the 915-MHz ISM Band for Health Monitoring Systems

Wahaj Abbas Awan (1); Niamat Hussain (2); Syed Muzahir Abbas (3); Young-Joon Kim (1)
(1) Gachon University (South Korea); (2) University of Glasgow (United Kingdom); (3) Macquarie University (Australia); (1) Gachon University (South Korea)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YVOA5257>

Room G1

G05-4: Thermosphere-Ionosphere Coupling Under Disturbed and Quiet Geomagnetic Conditions - Part 4

Session Chairs: Loredana Perrone, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Dario Sabbagh, Loredana Perrone, Mamoru Ishii

09:30 - 09:50

We-G05-AM-10-1 A global model of combined magnetospheric and thermospheric forcing of ionospheric electrodynamics

Karl Laundal (1, 2)

(1) Technical University of Denmark (Denmark); (2) University of Bergen (Norway)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OLZP4698>

09:50 - 10:10

We-G05-AM-10-2 Ionospheric tilt observations at western European mid-latitudes as an indicator of propagation characteristics of TIDs

David Altadill (1); Sivakandan Mani (2); Dima Paznukhov (3); Antoni Segarra (1); Víctor De Paula (1); Jens Mielich (2)

(1) Observatori de l'Ebre, University Ramon Llull - CSIC (Spain); (2) Leibniz Institute of Atmospheric Physics (Germany); (3) Boston College (United States); (1) Observatori de l'Ebre, University Ramon Llull - CSIC (Spain); (2) Leibniz Institute of Atmospheric Physics (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/APCB3055>

Room G2

G04-2: International Reference Ionosphere: Improvement, Validation and Usage - Part 2

Session Chairs: Andrzej Krankowski, University of Warmia and Mazury in Olsztyn, Poland

Session Conveners: Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak

09:30 - 09:50

We-G04-AM-10-1 The NeQuick model: current status and future prospects (Invited)

Bruno Nava (1); Pierdavide Coisson (2); Alessio Pignalberi (3); Michael Pezzopane (3)

(1) The Abdus Salam International Centre for Theoretical Physics (Italy); (2) Institut de physique du globe de Paris (France); (3) Istituto Nazionale di Geofisica e Vulcanologia (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RLJW7069>

09:50 - 10:10

We-G04-AM-10-2 Comparative Assessment of IRI, NeQuick, and IRI-Plas TEC Models over Southern Europe during the 1 January 2025 Geomagnetic Storm

Mostafa Hegy (1)

(1) National Research Institute of Astronomy (Egypt)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WKYC1601>

Room H

H04-2: Recent advances in geospace research from wide-range to multi-point observations - Part 2

Session Chairs: Jyrki Manninen, University of Oulu, Finland; Yoshiya Kasahara, Kanazawa University, Japan

Session Conveners: Jyrki Manninen, Jean-Francois Ripoll, Yoshiya Kasahara, Hanna Rothkaehl

09:30 - 09:50

We-H04-AM-10-1 Characteristics of NWC VLF Signal Propagation in the Inner Magnetosphere: Integrating Arase Satellite Observations with Ray Tracing

Yoshiya Kasahara (1); Taiyo Ushiyama (1); Yui Umezawa (1); Tsubasa Fujita (1); Shoya Matsuda (1); Mamoru Ota (2); Satoshi Kurita (3); Jean-Francois Ripoll (4); Gregory

Cunningham (5); David Malaspina (6); Fuminori Tsuchiya (7); Atsushi Kumamoto (7); Ayako Matsuoka (3); Atsuki Shinbori (8); Yoshizumi Miyoshi (8); Iku Shinohara (9)
(1) Kanazawa University (Japan); (2) National Institute of Technology (KOSEN), Toyama College (Japan); (3) Kyoto University (Japan); (4) CEA (France); (5) Los Alamos National Laboratory (United States); (6) University of Colorado Boulder (United States); (7) Tohoku University (Japan); (3) Kyoto University (Japan); (8) Nagoya University (Japan); (9) Japan Aerospace Exploration Agency (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DVDI5376>

09:50 - 10:10

We-H04-AM-10-2 The ESA M7 candidate mission Plasma Observatory: Unveiling plasma energization and energy transport in the Magnetospheric System with multiscale observations

Julia E. Stawarz (1); Maria Federica Marcucci (2); Alessandro Retinò (3)
(1) Northumbria University (United Kingdom); (2) IAPS-INAF Istituto di Astrofisica e Planetologia Spaziali (Italy); (3) Laboratoire de Physique des Plasmas (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EXDJ8408>

Room J1

J09-2: Post-correlation signal processing: Big Data and AI - Part 2

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands*

Session Conveners: *Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo*

09:30 - 09:50

We-J09-AM-10-1 An update on ASKAP Data Processing

Maxim Voronkov (1); Wasim Raja (1); Daniel Mitchell (1); Matthew Whiting (1); Mark Wieringa (1); Ian Czekala (1); Minh Vuong (1); Stephen Ord (1)
(1) CSIRO (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QAAZ1698>

09:50 - 10:10

We-J09-AM-10-2 Improving computational and scientific performance of self-calibration and imaging pipelines for LOFAR and SKA

Stefan Wijnholds (1); David Rafferty (2); Marcel Loose (1); André Offringa (1); Sebastiaan Van der Tol (1); Mick Veldhuis (1)
(1) ASTRON (Netherlands); (2) University of Hamburg (Germany); (1) ASTRON (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/STHP4138>

Room J2

J05-2: Wide-field radio astronomy and survey science - Part 2

Session Chairs: *Betsey Adams, SKA Observatory, South Africa*

Session Conveners: *Michael Kriele, Isabella Prandoni, Betsey Adams*

09:30 - 09:50

We-J05-AM-10-1 ARTEmIS: A Spherical Harmonic Software Suite for Wide-Field m-mode Imaging of the Diffuse Radio Sky

Michael Kriele (1); Edward Gluszek (1); Neethu Thomas (1); Jeremy Martin (1); Sascha Schediwy (1)
(1) University of Western Australia (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RIWA5035>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/JsRQqGWJEiZDgHm>

Room K

K08-1: Assessment of Exposure to Electromagnetic Fields in the work environment: measurements and numerical modelling - Part 1

Session Chairs: Jolanta Karpowicz, Central Institute for Labour Protection - National Research Institute (CIOP-PIB), Poland; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Simona D'Agostino, Jolanta Karpowicz, Alessandro Polichetti

09:30 - 09:50

We-K08-AM-10-1 Computational Dosimetry of 26 GHz Smart Glasses with a Rear-Mounted Antenna in an Occupational Scenario

Luca Bellosono (1, 2); Micol Colella (1); Simona D'Agostino (1); Gian Marco Contessa (2); Alessandro Polichetti (2); Micaela Liberti (1); Francesca Apollonio (1)
(1) Sapienza University of Rome (Italy); (2) Italian National Institute of Health (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MHDX5567>

09:50 - 10:10

We-K08-AM-10-2 Numerical modelling of electric field induced in workers by magnetic field near spot-welding electrodes

Jolanta Karpowicz (1); Patryk Zradziński (2)
(1) Jolanta Karpowicz (Poland); (2) Central Institute for Labour Protection (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZNXI3338>

Starting time between 10:30 - 11:29

Room A

A08: Calibration, Traceability, and Inter Comparisons of Instruments and Measurements

Session Chairs: Demetrios Matsakis, Masterclock, Inc., United States; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Louis Marais, Joseph Achkar, Carlo Carobbi, Raul Solis, Demetrios Matsakis, Murray Early

10:30 - 10:50

We-A08-AM-16-1 Key Factors during the implementation of Calibration Proficiency Testing

Wang Qianjuan (1); Jingjing Li (1)
(1) Beijing Orient Institute of Measurement and Test (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TXAS5666>

Room B1

B20-3: Rays and beams in electromagnetics - Part 3

Session Chairs: Ludger Klinkenbusch, Kiel University, Germany; Giuliano Manara, University of Pisa, Italy

Session Conveners: Prabhakar Pathak, Ludger Klinkenbusch, Giuliano Manara

10:30 - 10:50

We-B20-AM-16-1 Ray-Tracing Assisted Phase Correction for Inverse Source Reconstruction Based Through-Wall Passive Radar Imaging (Invited)

Quanfeng Wang (1); Thomas F. Eibert (1)
(1) Technical University of Munich (Germany)

Link to paper: <https://doi.org/10.46620/26-0006>

Room B2

B14: Wearable antennas and metasurfaces

Session Chairs: Viktor Asadchy, Aalto University, Finland; Di Kong, University of Oulu, Finland

Session Conveners: Viktor Asadchy, Xuchen Wang

10:30 - 10:50

We-B14-AM-16-1 Designing Microfluidic-Based Sub-THz Reconfigurable Intelligent Surfaces using Liquid Metal under Practical Constraints (Invited)

Di Kong (1); Duy Tung Phan (1); Ping Jack Soh (1)

(1) University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QUEI3460>

10:50 - 11:10

We-B14-AM-16-2 Wearable Metasurface Textiles for Battery-Free Aperture Enlargement of Mobile Antennas

Mohammad M. Asgari (1); Xianghui Qiu (2); Shuai Yuan (1); Francisco Cuesta (1); Sergei Tretyakov (1); Xuchen Wang (2); Viktor Asadchy (1)

(1) Aalto University (Finland); (2) Harbin Engineering University (China); (1) Aalto University (Finland); (2) Harbin Engineering University (China); (1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZPDP6264>

11:10 - 11:30

We-B14-AM-16-3 A Circularly Polarized High-Gain Sew-on Button Antenna with Low SAR and Detachable Radiator-Feed Modules for 5G Wearables

Sayan Sarkar (1)

(1) Institute of Engineering & Management (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RYYY7230>

Room C

CF: Weather radars

Session Chairs: Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Kumar Vijay Mishra, Madhukar Chandra

10:50 - 11:10

We-CF-AM-16-2 Multi-technique observations of Virga over Central India - A case study

Dizna James (1); Lekhraj Saini (1); Vaibhav Tyagi (1); Kavita Meena (1); Parvathy Thankachy P (1); Saurabh Das (1)

(1) Indian Institute of Technology Indore (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TDJA6253>

11:10 - 11:30

We-CF-AM-16-3 Rain drop size distribution moments from X-band radar observations during the 2013 Iowa IFloodS campaign (Invited)

Merhala Thurai (1); Gyuwon Lee (2); Kyuhee Shin (2)

(1) Colorado State University (United States); (2) Kyungpook National University (South Korea)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SLMV5213>

Room D

D07-3: Passive and active microwave components - Part 3

Session Chairs: Giacomo Paolini, University of Bologna, Italy; Ilona Piekarz, AGH University of Krakow, Poland

Session Conveners: Giacomo Paolini, Ilona Piekarz

10:30 - 10:50

We-D07-AM-16-1 Sub-Terahertz Waveguide Dual-Band Bandpass Filter Based on Periodic Structures and Subwavelength Resonators

Kai-Da Xu (1); Zeting Li (2); Roberto Gómez-García (1)
(1) University of Alcalá (Spain); (2) Xi'an Jiaotong University (China); (1) University of Alcalá (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VTCK5244>

10:50 - 11:10

We-D07-AM-16-2 Design of 3D microstrip filters using inverse scattering

Iran Bahena Miranda (1); Alejandro Pons Abenza (1); Germán Álvarez Botero (1); Iván Arregui (1); Txema Lopetegui (1); Miguel A. G. Laso (1)
(1) Public University of Navarre (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CEVS9786>

11:10 - 11:30

We-D07-AM-16-3 A Compact Coaxial Cavity Resonator Filter with Frequency Variant Coupling

Michał Baranowski (1); Maciej Jasinski (1)
(1) Gdansk University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDIV4470>

Room E

EFJ-3: RFI Detection, Characterization and Mitigation in Remote Sensing and Radio Astronomy - Part 3

Session Chairs: de Mattheaïs Paolo, University of Maryland Baltimore County, United States; Tzioumis Tasso, CSIRO, Australia

Session Conveners: Flávio Miguel da Silva Jorge, Paolo de Mattheaïs, Tasso Tzioumis

10:30 - 10:50

We-EFJ-AM-16-1 High-Power Servo Motor Drive System Electromagnetic Compatibility Design and Experimental Progress

Qi Liu (1)
(1) Xinjiang Astronomical Observatory, CAS (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UVDF6499>

10:50 - 11:10

We-EFJ-AM-16-2 Impulsive Interference in Complex Electromagnetic Environments: Measurement, Receiver Impact and Calibration Considerations

Graeme Young (1)
(1) South African Radio Astronomy Observatory (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JJBY8360>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/AmxmQcbchJYHFgY>

11:10 - 11:30

We-EFJ-AM-16-3 Towards Validation of RF Propagation Models used for SKA1MID Protection

Johannes Havenga (1)
(1) SARAO (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IJHB2033>

Room F

F07: Methods and Techniques for Next Generation Remote Sensing Radars

Session Chairs: Tobias Rommel, German Aerospace Center, Germany; Andreas Danklmayer, Fraunhofer FHR, Germany

Session Conveners: Madhu Chandra, Tobias Rommel

10:30 - 10:50

We-F07-AM-16-1 Waveform Design for FDA-MIMO Radar Using Majorization-Minimization for SAR Imaging

Jiawei Qi (1); Lan Lan (1); Yujin Zhang (2); Hai Huang (1); Guisheng Liao (1); Xiaolong Chen (1)

(1) Xidian University (China); (2) China Academy of Space Technology (China); (1) Xidian University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QKPQ7428>

Room G1

G05-5: Thermosphere-Ionosphere Coupling Under Disturbed and Quiet Geomagnetic Conditions - Part 5

Session Chairs: Loredana Perrone, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Dario Sabbagh, Loredana Perrone, Mamoru Ishii

10:30 - 10:50

We-G05-AM-16-1 Drivers of Mid-latitude Quiet-time Longitudinal Variations in Ionospheric Density

Katelynn Greer (1); Larisa Goncharenko (2); V. Lynn Harvey (1); Philip Erickson (2); Shunrong Zhang (2)

(1) University of Colorado Boulder (United States); (2) MIT Haystack Observatory (United States); (1) University of Colorado Boulder (United States); (2) MIT Haystack Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QWCL3417>

10:50 - 11:10

We-G05-AM-16-2 Impact of stratospheric warmings on the D-region of the ionosphere

Camille Aponte (1); Kyle Fitch (1); Daniel Emmons (1)

(1) Air Force Institute of Technology (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VHCS9478>

11:10 - 11:30

We-G05-AM-16-3 Excitations of Linear and Nonlinear Ionospheric Plasma Structures by Sources Placed Below, Inside and Above the Ionosphere and Radio Diagnostics

Yuriy Rapoport (1); Krankowski Andrzej (1); Błaszkiwicz Leszek (1); Adam Froń (1); Iurii Cherniak (2, 1); Michał Kownacki (1); Volodymyr Grimalsky (3); Jesús Escobedo-Alatorre (3); Margarita Tecpoyotl-Torres (3); Sergiy Shelyag (4); Vsevolod Yutis (5); Oleksandr Liashchuk (6); Dorota Przepiórka-Skup (7); Angelo De Santis (8); Gianfranco Cianchini (9)
(1) University of Warmia and Mazury in Olsztyn (Poland); (2) University Corporation for Atmospheric Research (United States); (3) Autonomous University of State Morelos (Mexico); (4) Flinders University (Australia); (5) Instituto Potosino de Investigación Científica y Tecnológica (Mexico); (6) National Space Facility Control and Tests Center, State Space Agency of Ukraine (Ukraine); (7) Space Research Centre of the Polish Academy of Sciences (Poland); (8) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (9) IAPS-INAF Istituto di Astrofisica e Planetologia Spaziali (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YGCC9961>

Room G2

G04-3: International Reference Ionosphere: Improvement, Validation and Usage - Part 3

Session Chairs: Dieter Bilitza, George Mason University, United States

Session Conveners: Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak

10:30 - 10:50

We-G04-AM-16-1 TOMIRIS: A Real-Time Data Assimilation IRI (Invited)

Benjamin Reid (1); David R. Themens (1); Sean Elvidge (1); Mohammad Afraz Ahmed (1); Warrick Ball (1)

(1) University of Birmingham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ONMP5998>

10:50 - 11:10

We-G04-AM-16-2 The performance of near-real time ionospheric data assimilation systems (Invited)

David Themens (1); Benjamin Reid (1); Sean Elvidge (1); Alessio Pignalberi (2); Anthony McCaffrey (3); Matthew Brown (1); Mohammad Afraz Ahmed (1); Warrick Ball (1); Jack Brown (1); Emma-Claire Gurney (1); Luke Nugent (1)

(1) University of Birmingham (United Kingdom); (2) Istituto Nazionale di Geofisica e Vulcanologia (Italy); (3) University of New Brunswick (Canada); (1) University of Birmingham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AVBL2607>

11:10 - 11:30

We-G04-AM-16-3 Real-Time IRI Model Calibration Based on Artificial Intelligence Ionogram Scaling (Invited)

Peng Liu (1, 2); Dieter Bilitza (3); Tatsuhiro Yokoyama (1); Mitsuru Terauchi (1); Shen Ren (1); Mingquan Lu (2)

(1) Kyoto University (Japan); (2) Tsinghua University (China); (3) George Mason University (United States)

Link to paper: <https://doi.org/10.46620/26-0099>

Room H

H04-3: Recent advances in geospace research from wide-range to multi-point observations - Part 3

Session Chairs: Yoshiya Kasahara, Kanazawa University, Japan; Jyrki Manninen, University of Oulu, Finland

Session Conveners: Jyrki Manninen, Jean-Francois Ripoll, Yoshiya Kasahara, Hanna Rothkaehl

10:30 - 10:50

We-H04-AM-16-1 Spatial Scales and Propagation of Power Line Harmonic Radiation: Space and Ground-Based Observations

Kristýna Drastichová (1); František Němec (1); Kazuo Shiokawa (2); Claudia Martinez-Calderon (2); Jyrki Manninen (3, 4)

(1) Charles University (Czech Republic); (2) Nagoya University (Japan); (3) Sodankylä Geophysical Observatory (Finland); (4) University of Oulu (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PTJP9845>

10:50 - 11:10

We-H04-AM-16-2 Occurrence and propagation of high-frequency VLF bursty-patch emissions from multi-point observations (Invited)

Claudia Martinez-Calderon (1); Jyrki Manninen (2); Kazuo Shiokawa (1); Yoshiya Kasahara (3); Shoya Matsuda (3); Iku Shinohara (4); Yoshizumi Miyoshi (1); Atsuki Shinbori (1); Hiroto Yatsuya (1); Miroslav Hanzelka (5); David Pisa (5)

(1) Nagoya University (Japan); (2) University of Oulu (Finland); (1) Nagoya University (Japan); (3) Kanazawa University (Japan); (4) Japan Aerospace Exploration Agency (Japan);

(1) Nagoya University (Japan); (5) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SYSO6510>

11:10 - 11:30

We-H04-AM-16-3 VLF bursty-patches observed at high-latitude stations

Jyrki Manninen (1); Claudia Martinez-Calderon (2); Kazuo Shiokawa (2)

(1) University of Oulu (Finland); (2) Nagoya University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YEUV6616>

Room J1

J09-3: Post-correlation signal processing: Big Data and AI - Part 3

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands*

Session Conveners: *Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo*

10:30 - 10:50

We-J09-AM-16-1 Multi-modal classification of radio galaxies

Trienko Grobler (1); Farge Dylan (1)

(1) Stellenbosch University (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EXGS5612>

10:50 - 11:10

We-J09-AM-16-2 Explainable machine learning workflows for radio astronomical data processing

Sarod Yatawatta (1); Aida Ahmadi (1); Bernard Asabere (1); Marco Iacobelli (1); Noa Peters (1); Mick Veldhuis (1)

(1) ASTRON (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PWKE4124>

11:10 - 11:30

We-J09-AM-16-3 Visualisation of SKA data on SRCNet using CARTA

Marcin Sokolowski (1); Jordan Collier (2)

(1) University of Western Australia (Australia); (2) Curtin University (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QBPY2839>

Room J2

J05-3: Wide-field radio astronomy and survey science - Part 3

Session Chairs: *Betsey Adams, SKA Observatory, South Africa*

Session Conveners: *Michael Kriele, Isabella Prandoni, Betsey Adams*

10:30 - 10:50

We-J05-AM-16-1 Radio Galaxy Zoo: EMU – Enabling Large Radio Surveys with Citizen Science and AI

Hongming Tang (1); Vardoulaki Eleni (2); Micah Bowles (3); Gary Segal (4); Soheb Mandhai (5); Emma L. Alexander (6); Wendy Williams (7); Yan Luo (8); Lawrence Rudnick (9); Andrew M. Hopkins (10); O. Ivy Wong (11); Stanislav S. Shabala (12); Velibor Velović (13)

(1) Xi'an Jiaotong - Liverpool University (China); (2) National Observatory of Athens (Greece); (3) University of Oxford (United Kingdom); (4) CSIRO, Space and Astronomy (Australia); (5) University of Manchester (United Kingdom); (6) University of Leeds (United Kingdom); (7) SKA Observatory (United Kingdom); (8) Peking University (China); (9) University of Minnesota (United States); (10) Macquarie University (Australia); (11) University of Western Australia (Australia); (12) University of Tasmania (Australia); (13) Western Sydney University (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZRLW5591>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/TS33Sa4BZ6YXKAJ>

10:50 - 11:10

- We-J05-AM-16-2 Radio AGNs and star-forming galaxies in the era of large-scale sky surveys**
Arti Goyal (1); Arpita Misra (2); Subhrata Dey (3); Unnikrishnan Sureshkumar (3); Krzysztof Chyzy (2); Marek Wezgowiec (2); Valentina Vacca (4)
(1) Uniwersytet Jagiellonski (Poland); (2) Jagiellonian University in Kraków (Poland); (3) National Center for Nuclear Research (Poland); (2) Jagiellonian University in Kraków (Poland); (4) INAF–Osservatorio Astronomico di Cagliari (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VXSL7209>

Room K

K07-2: Monitoring EMF Exposure from emerging technologies - Part 2

- Session Chairs:* Kun Li, The University of Electro-Communications, Japan; Paul Lagouanelle, LTCI, Télécom Paris, Institut Polytechnique de Paris, France
Session Conveners: Joe Wiart, Teruo Onishi, Sam Aerts, Kun Li

10:30 - 10:50

- We-K07-AM-16-1 Correction of Values Measured by an EMF Exposimeter**
Ae-Kyoung Lee (1); Sangbong Jeon (1); Jeong Ick Moon (1)
(1) ETRI (South Korea)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ENTT1358>

10:50 - 11:10

- We-K07-AM-16-2 Measurements of microenvironmental radiofrequency electromagnetic field exposure levels in different environments in JAPAN**
Miwa Ikuyo (1); Sachiko Yamaguchi-Sekino (1); Masao Taki (1); Teruo Onishi (1)
(1) National Institute of Information and Communications Technology (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KGBY2368>

11:10 - 11:30

- We-K07-AM-16-3 Temporal Prediction of RF-EMF Exposure Using Surrogate Modeling with Environment-based Clustering**
Paul Lagouanelle (1); Shanshan Wang (1); Yukun Liu (1); Yarui Zhang (2); Joe Wiart (1)
(1) LTCI, Télécom Paris, Institut Polytechnique de Paris (France); (2) ENS Paris-Saclay, CNRS, Université Paris-Saclay (France); (1) LTCI, Télécom Paris, Institut Polytechnique de Paris (France)
Link to paper: <https://doi.org/10.46620/26-0102>

Starting time between 10:30 - 11:29

Room B1

B02-3: Antenna theory, design and measurements - Part 3

- Session Chairs:* Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States
Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

10:50 - 11:10

- We-B02-AM-18-1 Reconfigurable Intelligent Surface (RIS) Design with A Novel Bit-Quantization Method for Precise Beam-Tilt Operation**
Amartya Banerjee (1); Vedula Kiran Bharadwaj (1); Hemant Kumar Rath (1); Tapas Chakravarty (1)
(1) TCS Research (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YGHJ2382>

11:10 - 11:30

We-B02-AM-18-2 On the Performance of Periodic Reflective Surfaces in an Indoor Environment in the Wi-Fi 7 Frequency Band (Invited)

Sima Noghanian (1)

(1) *Ruckus Networks (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RCGP1286>

Starting time between 11:30 - 12:29

Room P

GL-2: General Lecture - Part 2

Session Chairs: *Sana Salous, University of Durham, United Kingdom*

11:30 - 12:30

We-GL-AM-22-1 GL2 : Ionospheric Radio Science: Standing on Giants While Building the Future (Invited)

Anthea Coster (1)

(1) *MIT Haystack Observatory (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WQOX4133>

Starting time between 13:30 - 14:39

Room A

A10: Re-definition of the SI second: status and way forward

Session Chairs: *Gaetano Mileti, Institute of Physics, University of Neuchâtel, Switzerland; Ekkehard Peik, Physikalisch-Technische Bundesanstalt (PTB), Germany*

Session Conveners: *Gaetano Mileti, Poonam Arora, Ekkehard Peik*

13:40 - 14:00

We-A10-PM-05-1 The Path to Agreement: Historical Insights from the 1967 Redefinition of the Second

Ion Mihailescu (1, 2); Christoph Affolderbach (1); Gaetano Mileti (1)

(1) *Institute of Physics, University of Neuchâtel (Switzerland)*; (2) *Institute of History, University of Neuchâtel (Switzerland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JEMX8998>

14:00 - 14:20

We-A10-PM-05-2 Towards a Redefinition of the Second: The Work of the CCTF Task Force

Ekkehard Peik (1); Patrizia Tavella (2); Noel Dimarcq (3)

(1) *Physikalisch-Technische Bundesanstalt (PTB) (Germany)*; (2) *Bureau international des poids et mesures (France)*; (3) *Université Côte d'Azur (France)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GJSX4607>

Room B1

B02-4: Antenna theory, design and measurements - Part 4

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

13:40 - 14:00

We-B02-PM-05-1 Mutual Coupling Compensation Technique Based on Classical Z-parameters for Beamforming Applications

Mariusz Zamłyński (1, 2); Piotr Słobodzian (1)

(1) Wrocław University of Science and Technology (Poland); (2) Nokia Solutions and Networks (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OTLU2245>

14:00 - 14:20

We-B02-PM-05-2 A SIW Backed Uniformly Polarized Self-Octaplexing Antenna with Microfluid Enabled Frequency Reconfiguration for Multiband Applications

Sounik Kiran Kumar Dash (1); Vaishali Perumal (1); Qingsha S Cheng (2)

(1) SRM Institute of Science and Technology (India); (2) Southern University of Science and Technology (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RQGM9767>

14:20 - 14:40

We-B02-PM-05-3 Design of Low Sidelobe Dual-beam Reflectarray Antennas with AIFT

Xiaowen Zhao (1); Yuxuan Ding (1); Yunhua Zhang (1)

(1) National Space Science Center, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RQCA9470>

Room B2

B03-1: Scattering and diffraction - Part 1

Session Chairs: Giuliano Manara, University of Pisa, Italy; Ludger Klinkenbusch, Kiel University, Germany

Session Conveners: Giuliano Manara, Ludger Klinkenbusch

14:00 - 14:20

We-B03-PM-05-1 Pulse scattering by a chiral spherical shell

Héctor Iga Buitrón (1); Tom Mackay (1); Akhlesh Lakhtakia (2)

(1) The University of Edinburgh (United Kingdom); (2) The Pennsylvania State University (United States)

Link to paper: <https://doi.org/10.46620/26-0004>

13:40 - 14:00

We-B03-PM-05-1 A Systematic Application of Wiener-Hopf Method for Scattering Analysis of Cylindrical Structures with Polygonal Profiles (Invited)

Guido Lombardi (1); Vito Daniele (1)

(1) Politecnico di Torino (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RRGA6638>

14:20 - 14:40

We-B03-PM-05-3 Lateral Wave Contribution for Dielectric Wedge Diffraction Problems (Invited)

Hiroshi Shirai (1)

(1) Chuo University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OEEV8322>

Room C

C08: Non-terrestrial networks

Session Chairs: Alberto Tarable, National Research Council, Italy; Giacomo Bacci, UNIP, Italy

Session Conveners: Alberto Tarable, Giacomo Bacci

13:40 - 14:00

We-C08-PM-05-1 Fair user-satellite association for LEO networks in realistic conditions

Ali Zein Khalifeh (1); Alberto Tarable (1)

(1) National Research Council (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RRYG4918>

14:20 - 14:40

We-C08-PM-05-3 Synchronization in LEO 5G-NTN: Challenges and Solutions

Eislandy Mozo (1); Marius Caus (1); Amedeo Giuliani (1); Pol Henarejos (1); Piotr

Gawłowicz (2); Justin Tallon (2); Miguel Ángel Vázquez (1)

(1) Centre Tecnològic de Telecomunicacions de Catalunya (Spain); (2) Software Radio Systems (SRS) (Spain); (1) Centre Tecnològic de Telecomunicacions de Catalunya (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ELAL2826>

Room D

D07-1: Passive and active microwave components - Part 1

Session Chairs: Giacomo Paolini, University of Bologna, Italy; Ilona Piekarczyk, AGH University of Krakow, Poland

Session Conveners: Giacomo Paolini, Ilona Piekarczyk - Part 3

13:40 - 14:00

We-D07-PM-05-1 Ultrawide K-to-Ka-band inkjet-printed microstrip-to-tapered 3D waveguide transition

Deepal Patil (1); Dimitra Psychogiou (1, 2)

(1) Tyndall National Institute (Ireland); (2) University College Cork (Ireland)

Link to paper: <https://doi.org/10.46620/26-0122>

Room E

EFJ-4: RFI Detection, Characterization and Mitigation in Remote Sensing and Radio Astronomy - Part 4

Session Chairs: de Mattheaïs Paolo, University of Maryland Baltimore County, United States; Tzioumis Tasso, CSIRO, Australia

Session Conveners: Flávio Miguel da Silva Jorge, Paolo de Mattheaïs, Tasso Tzioumis

13:40 - 14:00

We-EFJ-PM-05-1 Forecasts on the potential impact of Radio Frequency Interference from future satellite mega constellations on the SKA Observatory.

Nicolas Cerardi (1); Emma Tolley (1); Federico Di Vruno (2)

(1) Ecole Polytechnique Federale de Lausanne (Switzerland); (2) Square Kilometre Array Observatory (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GCJF9403>

14:00 - 14:20

We-EFJ-PM-05-2 Forward predicting effects of oblique projection using CryoPAF commissioning ACMS

Lirio Lourenço (1); Aaron Chippendale (1)

(1) CSIRO (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JVBH5435>

Room F

F03-1: Remote Sensing of Earth and Planetary Atmospheres - Part 1

Session Chairs: Animesh Maitra, University of Calcutta, India; Gargi Rakshit, India Meteorological Department, India

Session Conveners: Animesh Maitra, Tomoo Ushio

13:40 - 14:00

We-F03-PM-05-1 Overview and Prospects on Upgrading Microwave Atmospheric Sounding for FengYun Satellite

Jieying He (1)

(1) National Space Science Center, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OOGZ5151>

14:00 - 14:20

We-F03-PM-05-2 Probing Jupiter's Atmosphere with Juno Radio Science: Deep Zonal Jets and Upper-Atmosphere Thermal Structure

Eli Galanti (1); Maria Smirnova (1); Andrea Casuro (2); Matteo Fonsetti (2); Paolo Tortora (2); Leigh Fletcher (3); Dustin Buccino (4); Glenn Orton (4); Paul Steffes (5); Scott Bolton (6); Yohai Kaspi (1)

(1) Weizmann Institute (Israel); (2) University of Bologna (Italy); (3) University of Leicester (United Kingdom); (4) Jet Propulsion Laboratory, California Institute of Technology (United States); (5) Georgia Institute of Technology (United States); (6) Southwest Research Institute (United States); (1) Weizmann Institute (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GBVL9972>

14:20 - 14:40

We-F03-PM-05-3 On The Impact of Atmospheric Composition for Synthetic Radio Occultation Soundings in Wildfire Plumes

Clémence Allietta (1); Rémi Douvenot (1); Sonia Cafieri (1)

(1) Ecole Nationale de l'Aviation Civile (ENAC) (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MCIX5846>

Room G1

G13-1: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 1

Session Chairs: Vincenzo Romano, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Iwona Stanislawska, Centrum Badan Kosmicznych PAN, Poland; Anthea Coster, MIT Haystack Observatory, United States

Session Conveners: Vincenzo Romano, Iwona Stanislawska, Anthea Coster

13:40 - 14:00

We-G13-PM-05-1 Thresholds Generated from CME-Driven Superposed TEC Storm Statistics during 2009-2025 for Satellite Navigation Applications

Lissa Duvvu (1); Nirvikar Dashora (1)

(1) National Atmospheric Research Laboratory (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IVUY5644>

14:00 - 14:20

We-G13-PM-05-2 GNSS signal interferences caused by space weather

Jens Berdermann (1); Daniela Banyś (1)

(1) Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WBYK7352>

14:20 - 14:40

We-G13-PM-05-3 Polish Independence Day storm 11 November 2025 and EGNOS ionospheric model response

Anna Świątek (1); Pierzchała Hubert (1); Tomasik Łukasz (1); Knut Stanley Jacobsen (2); Anders Martin Solberg (3)

(1) Space Research Centre of the Polish Academy of Sciences (Poland); (2) Norwegian Mapping Authority (Norway); (3) Norwegian Mapping Authority (Norway)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WWSD8441>

Room H

H04-4: Recent advances in geospace research from wide-range to multi-point observations - Part 4

Session Chairs: Yoshiya Kasahara, Kanazawa University, Japan; Jyrki Manninen, University of Oulu, Finland

Session Conveners: Jyrki Manninen, Jean-Francois Ripoll, Yoshiya Kasahara, Hanna Rothkaehl

13:40 - 14:00

We-H04-PM-05-1 Energetic pulsating aurora: connection to substorm particle injections and effects on conductivity

Allison Jaynes (1); Jodie McLennan (1); Riley Troyer (2)

(1) University of Iowa (United States); (2) Space Dynamics Laboratory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JZEJ1289>

14:00 - 14:20

We-H04-PM-05-2 Using Swarm Observations to Shed New Light on the Processes Responsible for Rapid Outer Radiation Belt Flux Dropouts (Invited)

Louis Ozeke (1); Ian Mann (1); Ivan Pakhotin (2); Abby Azari (1)

(1) University of Alberta (Canada); (2) VI3D Labs Inc (Canada); (1) University of Alberta (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZIXE9966>

14:20 - 14:40

We-H04-PM-05-3 The Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites (TRACERS) - Mission Design and First Results (Invited)

David Miles (1); Craig Kletzing (1); Stephen Fuselier (2); Katherine Goodrich (3); Bonnell John (4); Bounds Scott (1); Cairns Ivar (5); Chen Li Jen (6); Christopher Ivar (1); Cleveland Keith (1); Connor Hyunju (6); Crawford Danielle (1); Dolan Jeffrey (1); Dorelli John (6); Dvorsky Richard (1); Finley Matthew (1); Friedel Reindhard (7); Halekas Jasper (1); Hospodarsky George (1); Jaynes Allison (1); LaBelle James (8); Lasko Amanda (1); Lin Yu (9); Øieroset Marit (4); Petrinen Steven (10); Phillips Mark (2); Powers Brendan (1); Prasad Richard (11)

(1) University of Iowa (United States); (2) Southwest Research Institute (United States); (3) West Virginia University (United States); (4) University of California, Berkeley (United States); (5) The University of Sydney (Australia); (6) NASA Goddard Space Flight Center (United States); (7) NASA Goddard Space Flight Center (United States); (8) NASA Goddard Space Flight Center (United States); (9) Auburn University (United States); (10) Lockheed Martin Advanced Technology Center (United States); (11) Millennium Space Systems (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KRRP1956>

Room J1

J09-4: Post-correlation signal processing: Big Data and AI - Part 4

Session Chairs: [Stefan Wijnholds, ASTRON, Netherlands](#)

Session Conveners: [Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo](#)

13:40 - 14:00

We-J09-PM-05-1 S-R2D2: a spherical extension of the R2D2 deep neural network series paradigm for wide-field radio-interferometric imaging (Invited)

Ayoub Tajja (1); Arwa Dabbech (1); Yves Wiaux (1)

(1) *Heriot-Watt University (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/OHSE7968](https://doi.org/10.46620/URSIGASS26/OHSE7968)

14:00 - 14:20

We-J09-PM-05-2 R2D2 for event-horizon-scale imaging (Invited)

Chung San Chu (1); Abbie Dawson (1); Subham Shome (1); Yves Wiaux (1)

(1) *Heriot-Watt University (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/IHJF3559](https://doi.org/10.46620/URSIGASS26/IHJF3559)

14:20 - 14:40

We-J09-PM-05-3 Radio-Interferometric Image Reconstruction with Denoising Diffusion Restoration Models (Invited)

Emma Tolley (1); Remi Poitevineau (1); Morales Michel (1)

(1) *Ecole Polytechnique Federale de Lausanne (Switzerland)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/GDOC6995](https://doi.org/10.46620/URSIGASS26/GDOC6995)

Room K

K08-2: Assessment of Exposure to Electromagnetic Fields in the work environment: measurements and numerical modelling - Part 2

Session Chairs: [Jolanta Karpowicz, Central Institute for Labour Protection - National Research Institute \(CIOP-PIB\), Poland](#); [Francesca Apollonio, Sapienza University of Rome, Italy](#)

Session Conveners: [Simona D'Agostino, Jolanta Karpowicz, Alessandro Polichetti](#)

13:40 - 14:00

We-K08-PM-05-1 Monitoring of the evolution of exposure to ultra-high frequency electromagnetic radiation from using wireless communication public networks while travelling on fast trains in Poland

Jolanta Karpowicz (1); Krzysztof Gryz (2); Patryk Zradziński (3)

(1) *Jolanta Karpowicz (Poland)*; (2) *Krzysztof Gryz (Poland)*; (3) *Central Institute for Labour Protection (Poland)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/QTIA4608](https://doi.org/10.46620/URSIGASS26/QTIA4608)

14:00 - 14:20

We-K08-PM-05-2 Characterization of the dispersion of magnetic field gradients inside MR installations for diagnostic imaging

Riccardo Di Liberto (1); Claudia Kieffer (2)

(1) *Fondazione IRCCS Policlinico San Matteo (Italy)*; (2) *Università degli Studi di Pavia (Italy)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/UHHP3975](https://doi.org/10.46620/URSIGASS26/UHHP3975)

14:20 - 14:40

We-K08-PM-05-3 Laboratory tests of the magnetic field sensitivity (MFS) of digital magnetic field meters calibrated to the root-mean-square (RMS) reading, aimed at improving the evaluation of pulsed modulated magnetic fields in the metal industry

Jolanta Karpowicz (1); Krzysztof Gryz (2)

(1) Jolanta Karpowicz (Poland); (2) Krzysztof Gryz (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AEAK9700>

Room P

DTut: Commission D Tutorial

Session Chairs: Atsushi Kanno, URSI Commission D Chair

13:40 - 14:40

We-DTut-PM-05-1 Wireless Power Transfer at Long Distances by Focusing Microwaves with Quasioptics (Invited)

Ricardo Pereira (1); Nuno Borges Carvalho (1)

(1) Instituto de Telecomunicações (Portugal)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GQVN8736>

Starting time between 13:30 - 14:39

Room A

A09: Microwave and Optical Frequency Standards

Session Chairs: Gaetano Mileti, Institute of Physics, University of Neuchâtel, Switzerland; Ekkehard Peik, Physikalisch-Technische Bundesanstalt (PTB), Germany

Session Conveners: Tekehiko Tanabe, Fang Fang, Poonam Arora, Amitava Sen Gupta

14:20 - 14:40

We-A09-PM-09-1 Nuclear Laser Spectroscopy of Thorium-229 - Towards a Nuclear Clock

Ekkehard Peik (1)

(1) Physikalisch-Technische Bundesanstalt (PTB) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UXSN7127>

14:40 - 15:00

We-A09-PM-09-2 Compact High-Flux Cold Atom Source via Single-Laser Electro-Optic Modulation for Absolute Quantum Gravimeter

Aishik Acharya (1); Anju (1); Harish Kumar Rathode (1)

(1) TCG CREST (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BDVD9062>

15:00 - 15:20

We-A09-PM-09-3 Status Update and Recent Progress in Cesium Fountain Frequency Standards at NPL India

Poonam Arora (1); Anjali Bisht (1); Aditya Mishra (1); Harupjit Singh (1); Vijesh K R (1);

Suchi Yadav (1); Manoj Das (1); Amitava Sen Gupta (2)

(1) CSIR-National Physical Laboratory (India); (2) North Cap University (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GJVD6009>

Room D

D08-3: Recent Advances in Electronics and Photonics (Open Session) - Part 3

Session Chairs: Tahsin Akalin, Université de Lille, France; Atsushi Kanno, Nagoya Institute of Technology, Japan

Session Conveners: Atsushi Kanno, Tahsin Akalin

14:20 - 14:40

We-D08-PM-09-1 Optimal Synthesis of Electromagnetic Fields Using PCB Technology

Jose Antonio Vílchez Membrilla (1); Sebastián Jesús Jiménez Vázquez (1); Víctor Salas Moreno (1); Carlos Rodríguez-Cordón (1); Jose María Guerrero Rodríguez (1); Ángel Quirós-Olozabal (1); Clemente Cobos Sánchez (1)
(1) University of Cádiz (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BDTB9937>

Starting time between 14:40 - 15:39

Room B1

B02-5: Antenna theory, design and measurements - Part 5

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

14:40 - 15:00

We-B02-PM-11-1 Compact Wideband Antenna Pair with Hybrid Decoupling Techniques

Yilin Gao (1)
(1) The Chinese University of Hong Kong (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MEUE1796>

15:00 - 15:20

We-B02-PM-11-2 New Topology of Microstrip Patch and the Associated Ground Plane Featuring Frequency Reconfigurability with Attractive Radiation Characteristics

Soumojeet Basak (1); Debatosh Guha (1)
(1) Institute of Radio Physics and Electronics, University of Calcutta (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ABVL3653>

Room B2

B03-2: Scattering and diffraction - Part 2

Session Chairs: Giuliano Manara, University of Pisa, Italy; Ludger Klinkenbusch, Kiel University, Germany

Session Conveners: Giuliano Manara, Ludger Klinkenbusch

14:40 - 15:00

We-B03-PM-11-1 Bandwidth broadening in 2-D dielectric photonic crystals leaky-wave antennas (Invited)

Ludovica Tognolatti (1); Alessandro Romano (1); Vakhtang Jandieri (2); Cristina Ponti (1); Giuseppe Schettini (1); Paolo Baccarelli (1)
(1) Roma Tre University (Italy); (2) University of Duisburg-Essen (Germany); (1) Roma Tre University (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IWMX5167>

Room E

EFJ-5: RFI Detection, Characterization and Mitigation in Remote Sensing and Radio Astronomy - Part 5

Session Chairs: *de Mattheaïs Paolo, University of Maryland Baltimore County, United States; Tzioumis Tasso, CSIRO, Australia*

Session Conveners: *Flávio Miguel da Silva Jorge, Paolo de Mattheaïs, Tasso Tzioumis*

14:40 - 15:00

We-EFJ-PM-11-1 Mapping Polarimetric Characteristics of Radio Frequency Interference in L-Band Synthetic Aperture Radar Data

Yu Hashimoto (1); Ryu Sugimoto (2); Akira Hirose (1); Ryo Natsuaki (1)
(1) *The University of Tokyo (Japan)*; (2) *National Institute of Advanced Industrial Science and Technology (Japan)*; (1) *The University of Tokyo (Japan)*

Link to paper: <https://doi.org/10.46620/26-0052>

15:00 - 15:20

We-EFJ-PM-11-2 Evolution of the Radio Interference Environment Observed by the SMAP Radiometer at 1400-1427 MHz

Paolo de Mattheaïs (1); Priscilla Mohammed (1)
(1) *NASA Goddard Space Flight Center (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VLJO7746>

Room F

F03-2: Remote Sensing of Earth and Planetary Atmospheres - Part 2

Session Chairs: *Animesh Maitra, University of Calcutta, India; Gargi Rakshit, India Meteorological Department, India*

Session Conveners: *Animesh Maitra, Tomoo Ushio*

14:40 - 15:00

We-F03-PM-11-1 Climatology of mesospheric echoes obtained with the new JULIA-MP mode: Preliminary results

Florentino Jorge (1); Scipion Danny (1)
(1) *Radio Observatorio de Jicamarca, Instituto Geofísico del Perú (Peru)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IAID2484>

15:00 - 15:20

We-F03-PM-11-2 First Results on Mesospheric Echoes and Dynamics from the 53 MHz Haringhata Radar

Amit Patra (1); Peddapati Pavanchaitanya (1); Ashik Paul (2)
(1) *National Atmospheric Research Laboratory (India)*; (2) *University of Calcutta (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XBYP7335>

Room G1

G13-2: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 2

Session Chairs: *Vincenzo Romano, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Iwona Stanislawska, Centrum Badan Kosmicznych PAN, Poland; Anthea Coster, MIT Haystack Observatory, United States*

Session Conveners: *Vincenzo Romano, Iwona Stanislawska, Anthea Coster*

14:40 - 15:00

We-G13-PM-11-1 Different frequency-time characteristics of total electron content anomalies over different tectonic plate boundaries.

Wojciech Jarmolowski (1)
(1) *University of Warmia and Mazury in Olsztyn (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YCSH6470>

15:00 - 15:20

We-G13-PM-11-2 Incoherent Scatter Radar as a Comprehensive Tool for Space Weather Studies (Invited)

Philip Erickson (1); Larisa Goncharenko (1); Shunrong Zhang (1)
(1) MIT Haystack Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NWSO3469>

Room G2

G12-2: Open Session - Part 2

Session Chairs: David Themens, University of Birmingham, United Kingdom; Keith Groves, Boston College, United States

Session Conveners: Keith Groves, Sean Elvidge, Dario Sabbagh, Bruce Fritz, David Themens

14:40 - 15:00

We-G12-PM-11-1 Solar cycle and seasonal analysis of ionospheric diurnal double maximum (DDM) structures

Zama Katamzi-Joseph (1); Fanelesibonge Khoza (1); Emmanuel Nahayo (2); Judy Stephenson (1)
(1) University of KwaZulu-Natal (South Africa); (2) South African National Space Agency (South Africa); (1) University of KwaZulu-Natal (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KCUA8249>

Room H

HG1-1: Small satellites, suborbital experiments, and new instruments for near-Earth space science - Part 1

Session Chairs: Robert Marshall, University of Colorado Boulder, United States; Bruce Fritz, Naval Research Laboratory, United States

Session Conveners: Robert Marshall, Bruce Fritz, David Malaspina

14:40 - 15:00

We-HG1-PM-11-1 SAS4 intelligent plasma wave instrument

János Lichtenberger (1, 2); Péter Szegedi (3); János Lazányi (4); David Altadill (5)
(1) Obuda University (Hungary); (2) HUN-REN-ELTE Space Research Group, (Hungary); (3) BL Electronics Ltd. (Hungary); (4) PCBDesign Ltd. (Hungary); (5) Observatori de l'Ebre (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GAAV6239>

15:00 - 15:20

We-HG1-PM-11-2 Low-Cost Monitoring of Energetic Space Radiation: Weather Balloon-Borne Measurements During the May 2024 Superstorm

L. Oliifer (1); P Manavalan (1); D. Zhou (1); M. Patel (2); I.R. Mann (1); M.K. Hudson (2); A. Kale (1); Y. Miyoshi (3)
(1) University of Alberta (Canada); (2) Dartmouth College (United States); (1) University of Alberta (Canada); (2) Dartmouth College (United States); (1) University of Alberta (Canada); (3) Nagoya University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FXKY4017>

Room J1

J09-5: Post-correlation signal processing: Big Data and AI - Part 5

Session Chairs: Stefan Wijnholds, *ASTRON, Netherlands*

Session Conveners: Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo

14:40 - 15:00

We-J09-PM-11-1 Scalable Statistical Inference for Wide-Field Radio Interferometry: Applying pfb-imaging to MeerKAT UHF Band Data of the Galactic Center

Hertzog Bester (1, 2); Jonathan Kenyon (2, 1); Simon Perkins (1, 2); Oleg Smirnov (2, 1)
(1) *South African Radio Astronomy Observatory (South Africa)*; (2) *Rhodes University (South Africa)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TEIV1251>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/3THFpq4PZpeHA7n>

15:00 - 15:20

We-J09-PM-11-2 ASKAP Reference Field Calibration

Ian Czekala (1); Matt Austin (2); Aaron Chippendale (1); Stefan Duchesne (1); Timothy Galvin (2); Aidan Hotan (1); Emil Lenc (1); Daniel Mitchell (1); Vanessa Moss (1); Wasim Raja (1); Maxim Voronkov (1); Minh Vuong (1); Matthew Whiting (1); Mark Wieringa (1)
(1) *CSIRO (Australia)*; (2) *CSIRO (Australia)*; (1) *CSIRO (Australia)*; (2) *CSIRO (Australia)*; (1) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RAGV6157>

Room K

K08 & K09: Electromagnetic Exposure Assessment and Modeling

Session Chairs: Tomoaki Nagaoka, *National Institute of Information and Communications Technology, Japan*; Kun Li, *The University of Electro-Communications, Japan*

Session Conveners: Simona D'Agostino, Jolanta Karpowicz, Alessandro Polichetti, Emily Porter, Tomoaki Nagaoka, Lars Ole Fichte, Kun Li

14:40 - 15:00

We-K08 & K09-PM-11-1 Empirical assessment of the impact of the development of new generation networks in the urban environment on the indoor components of exposure to the UHF and SHF electromagnetic radiation from public radio communication services

Jolanta Karpowicz (1); Krzysztof Gryz (2)
(1) *Jolanta Karpowicz (Poland)*; (2) *Central Institute for Labour Protection (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MPZM2955>

15:00 - 15:20

We-K08 & K09-PM-11-2 An efficient stochastic finite-element method to quantify the uncertainty in the electroporation phenomena

Titouan Marquaille (1); Thomas Bonnafont (2); Arnaud Coatanhay (1)
(1) *ENSTA (France)*; (2) *DGA (France)*; (1) *ENSTA (France)*

Link to paper: <https://doi.org/10.46620/26-0021>

Starting time between 15:40 - 16:39

Room A

A13-1: Time & Frequency Transfer Techniques and Precision Geolocation - Part 1

Session Chairs: Dirk Piester, *Physikalisch-Technische Bundesanstalt (PTB), Germany*; Demetrios Matsakis, *Masterclock, Inc., United States*

Session Conveners: Michael Wouters, H T Lin, Thayatip Thongtan, Dirk Piester, Joseph Achkar, Giovanna Signorile, Parameswar Banerjee

15:40 - 16:00

We-A13-PM-17-1 Beyond L-Band GNSS Ambiguity Resolution: Theory and Prospects

Giulio Tagliaferro (1)
(1) *Bureau international des poids et mesures (France)*
Link to paper: <https://doi.org/10.46620/26-0101>

16:00 - 16:20

We-A13-PM-17-2 Standard Frequency and Time Distribution on PTB Campus

Martin Langer (1); Kristof Teichel (1); Florian Heimbach (1); Jürgen Becker (1); Wilfried Vajen (1); Dirk Piester (1)
(1) *Physikalisch-Technische Bundesanstalt (PTB) (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZMXA3584>

16:20 - 16:40

We-A13-PM-17-3 Transferring and Comparing Frequency in Long Range based on LRR

Wenxiao Li (1); Jinsong Ping (1); Mingyuan Wang (1); Jing Sun (1)
(1) *National Astronomical Observatories, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AIID2939>

Room B1

B05-1: Propagation and scattering: advances, trends and new applications - Part 1

Session Chairs: Thomas Kürner, *Technische Universität Braunschweig, Germany*; Michela Longhi, *Niccolò Cusano University, Italy*

Session Conveners: Danilo Erricolo, Thomas Kuerner, Guido Lombardi

15:40 - 16:00

We-B05-PM-17-1 Propagation Analysis of Čerenkov Terahertz Emission in Magnetically Biased Graphene Structures (Invited)

Michela Longhi (1); Davide Mencarelli (2); Alessandro Toscano (3); Luca Pierantoni (2)
(1) *Niccolò Cusano University (Italy)*; (2) *Università Politecnica delle Marche (Italy)*; (3) *Roma Tre University (Italy)*; (2) *Università Politecnica delle Marche (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IIVI8906>

16:00 - 16:20

We-B05-PM-17-2 Plasma Metastructures for Tailoring Electromagnetic Wave Propagation (Invited)

Alessio Monti (1); Mohammad G. H. Alijani (1); Mirko Barbuto (1); Muhammed Tawqeer (1); Stefano Vellucci (2); Alessandro Toscano (1); Filiberto Bilotti (1)
(1) *Roma Tre University (Italy)*; (2) *Niccolò Cusano University (Italy)*; (1) *Roma Tre University (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MVFU5860>

16:20 - 16:40

We-B05-PM-17-3 Propagation Modeling over a Piecewise Terrain in 3D using the Shift Map Method including Cross Terms

Xinyi Huang (1); Alexandre Chabory (1); Rémi Douvenot (1); Hang Zhou (2)
(1) *Ecole Nationale de l'Aviation Civile (ENAC) (France)*; (2) *Civil Aviation University of China (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TFNW7844>

Room B2

B01-1: Electromagnetic theory - Part 1

Session Chairs: Daniel Sjöberg, Lund University, Sweden; Henrik Wallén, Aalto University, Finland; Mariana Dalarsson, KTH, Sweden

Session Conveners: Daniel Sjöberg, Henrik Wallén, Mariana Dalarsson

15:40 - 16:00

We-B01-PM-17-1 Momentum and Energy Change of a Charged Sphere under an Abrupt Jump in Velocity (Invited)

Yaghjian Arthur (1)
(1) *Electromagnetics Research (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QOHX4820>

16:00 - 16:20

We-B01-PM-17-2 Measurement Symmetries for Materials with Faraday Rotation versus Optical Activity (Invited)

Michael Havrilla (1)
(1) *Air Force Institute of Technology (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RDAI4986>

16:20 - 16:40

We-B01-PM-17-3 Helmholtz Link: Unified Modeling of Quasi-Static and Wave Regimes in Engineered Media

Andrea Pirisi (1); Riccardo Zich (1)
(1) *Politecnico di Milano (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VBGZ3735>

Room C

C09-1: Synthetic aperture radar (SAR) signal processing: Techniques and applications - Part 1

Session Chairs: Ajeet Kumar, Radar and Surveillance Systems (RaSS), National Laboratory of CNIT, Italy; Hossein Amir, CNIT, Italy; Rakesh Sharma, National Institute of Technology Hamirpur, India

Session Conveners: Ajeet Kumar, Amir Hossein, Rakesh Sharma

15:40 - 16:00

We-C09-PM-17-1 A Vision Hypergraph Neural Network for SAR Target Recognition

Qian Sun (1); Shichao Chen (1); Ze Hu (1); Mingliang Tao (1); Ming Liu (2)
(1) *Northwestern Polytechnical University (China)*; (2) *Shaanxi Normal University (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GOCS2635>

16:00 - 16:20

We-C09-PM-17-2 Flood Monitoring in India: Creating Flood-Event Observation SAR Imagery Dataset, Deep and Semantic Segmentation Models

Gopal Singh Phartiyal (1); Deepmala Trivedi (2); Prashant Umrao (3); Kumar Ajeet (4)
(1) *University of Leeds (United Kingdom)*; (2) *Indian Institute of Technology, Roorkee (India)*; (3) *Birla Institute of Technology and Sciences - Pilani (India)*; (4) *Radar and Surveillance Systems (RaSS), National Laboratory of CNIT (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HBYJ6746>

16:20 - 16:40

We-C09-PM-17-3 Ejecta Characterization of an Icy Crater using Chandrayaan-2 Dual Frequency Synthetic Aperture Radar Data

Nitish Kumar (1); Virendra Singh Rathore (1); Ajeet Kumar (2); Akhouri Pramod Krishna (1)
(1) *Birla Institute of Technology, Mesra (India)*; (2) *CNIT (National Inter-University Consortium for Telecommunications) (Italy)*; (1) *Birla Institute of Technology, Mesra (India)*
Link to paper: <https://doi.org/10.46620/26-0075>

Room E

EFGH-1: Natural Electromagnetic Noise and Radio Sensing Applications in Terrestrial and Planetary Environment - Part 1

Session Chairs: Carlo Carobbi, *Università degli Studi di Firenze, Italy*; Piotr Slobodzian, *Wroclaw University of Science and Technology, Poland*

Session Conveners: Yasuhide Hobara, *Sujay Pal, Tomoo Ushio*

15:40 - 16:00

We-EFGH-PM-17-1 Ionospheric and Space Weather Research in Thailand Using GNSS CM01 Receiver and Neutron Monitor Data

Suwicha Wannawichian (1); Siramas Komonjinda (1); Waraporn Nuntiyakul (1); Achara Seripienlert (1); Thirasak Panyaphirawat (2); Tatphicha Promfu (2); Jirapoom Budtho (3); Kotchanipa Chainoi (2)
(1) *Chiang Mai University (Thailand)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DMTX4818>

16:00 - 16:20

We-EFGH-PM-17-2 Characterization of Travelling Ionospheric Disturbances induced by gravity waves generated by thunderstorms by dense GNSS sensors network

Thomas Farges (1); Elvira Astafyeva (2); Elouan Princelle (1)
(1) *Commissariat à l'Energie Atomique et aux Energies Alternatives (France)*; (2) *Institut de physique du globe de Paris (France)*; (1) *Commissariat à l'Energie Atomique et aux Energies Alternatives (France)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FAMT2032>

16:20 - 16:40

We-EFGH-PM-17-3 FDTD Modeling of Electromagnetic Wave Propagation through the Ionosphere

Jamesina Simpson (1); Apoorva Pedgaonkar (1); Elizabeth Jensen (2)
(1) *University of Utah (United States)*; (2) *Planetary Science Institute (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/PAWS2799>

Room F

F03-3: Remote Sensing of Earth and Planetary Atmospheres - Part 3

Session Chairs: Animesh Maitra, *University of Calcutta, India*; Gargi Rakshit, *India Meteorological Department, India*

Session Conveners: Animesh Maitra, *Tomoo Ushio*

15:40 - 16:00

We-F03-PM-17-1 Water Vapor from GNSS Radio Occultation and its Value for Observing Atmospheric Rivers

Ulrich Foelsche (1, 2); Bahareh Rahimi (1); Linda M. Maier (1)
(1) *University of Graz, Institute of Physics (Austria)*; (2) *Wegener Center for Climate and Global Change (Austria)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QOUE1531>

16:00 - 16:20

We-F03-PM-17-2 Characterization of Tropical Precipitation and Atmospheric Dynamics near a Land–Sea Boundary under Extreme Weather Scenarios

Animesh Maitra (1); Gargi Rakshit (2); Soumyajyoti Jana (3)
(1) *Institute of Radio Physics and Electronics, University of Calcutta (India)*; (2) *India Meteorological Department (India)*; (3) *Indian Institute of Tropical Meteorology (IITM) (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JZBN8366>

16:20 - 16:40

We-F03-PM-17-3 Retrieval of humidity based on refractivity profiles from GNSS airborne radio occultations

Aleksandra Maciejewska (1); Paweł Hordyniec (2)
(1) *AGH University of Krakow (Poland)*; (2) *Wrocław University of Environmental and Life Sciences (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QBKU3361>

Room G1

G10-5: Advances in Irregularities and Scintillation Studies - Part 5

Session Chairs: Jayachandran P. Thayyil, *University of New Brunswick, Canada*; Rebecca Ghidoni, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*

Session Conveners: Luca Spogli, *Kshitija Deshpande, P. T. Jayachandran, Daria Kotova*

Room G1

G13-3: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 3

Session Chairs: Vincenzo Romano, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Iwona Stanisławska, *Centrum Badan Kosmicznych PAN, Poland*; Anthea Coster, *MIT Haystack Observatory, United States*

Session Conveners: Vincenzo Romano, *Iwona Stanisławska, Anthea Coster*

15:40 - 16:00

We-G10-PM-17-1 Monitoring equatorial ionospheric scintillation using low-cost software defined radios - some results from the Indian sector

Jishnu Nambissan Thekkeppattu (1)
(1) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IVTK6571>

15:40 - 16:00

We-G13-PM-17-1 Analysis by Synthesis of Very Low Frequency Data

Benjamin Smith (1); Hunter Burch (1)
(1) *Auburn University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KAVR1303>

16:00 - 16:20

We-G13-PM-17-2 Major Geomagnetic Storms Comparison with the GIC Index

Fabian Zgiet (1); Anna Wawrzaszek (1); Agnieszka Gil-Świderska (1, 2); Renata Modzelewska-Łagodzińska (2); Mariusz Pożoga (1)
(1) *Centrum Badan Kosmicznych Polskiej Akademii Nauk (Poland)*; (2) *Uniwersytet w Siedlcach (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RKWB1988>

16:00 - 16:20

We-G10-PM-17-2 HF Radio Probing of the Bottomside Ionosphere and ESF/EPB Prediction

Amit Patra (1); K K Ajith (2); Peddapati Pavanchaitanya (1)
(1) National Atmospheric Research Laboratory (India); (2) Kyoto University (Japan); (1) National Atmospheric Research Laboratory (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XDGJ6465>

16:20 - 16:40

We-G10-PM-17-3 Inversion of L-band SAR images for ionospheric turbulence characterization

Gregory Morel (1); Vincent Fabbro (1); Olivier Boisoit (1)
(1) Onera (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/BLZX9005>

16:20 - 16:40

We-G13-PM-17-3 Effects Of April 2023 Solar Storm on Upper and Lower Ionosphere Across Malaysia

Darren Jia Le Ang (1); Suhaila M Buhari (1); Siti Aminah Bahari (2); Mardina Abdullah (2)
(1) Universiti Teknologi Malaysia (Malaysia); (2) Universiti Kebangsaan Malaysia (Malaysia)
Link to paper: <https://doi.org/10.46620/26-0026>

Room H

HG1-2: Small satellites, suborbital experiments, and new instruments for near-Earth space science - Part 2

Session Chairs: Robert Marshall, University of Colorado Boulder, United States; Bruce Fritz, Naval Research Laboratory, United States

Session Conveners: Robert Marshall, Bruce Fritz, David Malaspina

15:40 - 16:00

We-HG1-PM-17-1 Imaging Microburst Precipitation with Atmospheric X-ray emissions(IMPAX) CubeSat Mission

Christopher Colpitts (1); Robert Marshall (2); Harlan Spence (3); Lindsay Glesener (1); Sadie Elliott (1)
(1) University of Minnesota (United States); (2) University of Colorado Boulder (United States); (3) UNH Department of Physics (United States); (1) University of Minnesota (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/RAOP2565>

16:00 - 16:20

We-HG1-PM-17-2 Investigating Space Radiation and Atmospheric Climate Impacts with the Canadian RADICALS Mission

Louis Ozeke (1); Ian Mann (1); Christopher Cully (2); Robert Fedosejevs (1); Steven Knudsen (1); David Milling (1); Greg Enno (1); Michael Lipsett (1); Robert Zee (3); Robert Rankin (1); Martin Connors (4); William Ward (5); Robyn Fiori (6); Leonid Olifer (1); Robert Marshall (7); David Cullen (1); David Barona (1); Andrew Howarth (2); Andrew Yau (2)
(1) University of Alberta (Canada); (2) University of Calgary (Canada); (1) University of Alberta (Canada); (3) Space Flight Laboratory (Canada); (1) University of Alberta (Canada); (4) Athabasca University (Canada); (5) University of New Brunswick (Canada); (6) Natural Resources Canada (Canada); (1) University of Alberta (Canada); (7) University of Colorado Boulder (United States); (1) University of Alberta (Canada); (2) University of Calgary (Canada)
Link to paper: <https://doi.org/10.46620/URSIGASS26/HVZD9232>

16:20 - 16:40

We-HG1-PM-17-3 The Climatology of Anthropogenic and Natural VLF wave Activity in Space (CANVAS) CubeSat Mission

Robert Marshall (1); David Malaspina (1); Thierry Dudok de Wit (2); Guillaume Jannet (3); Sebastian Wankmueller (1)

(1) *University of Colorado Boulder (United States)*; (2) *Université d'Orléans (France)*; (3) *Laboratoire de Physique et Chimie de l'Environnement et de l'Espace (France)*; (1) *University of Colorado Boulder (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MPAN7037>

Room J1

J09-6: Post-correlation signal processing: Big Data and AI - Part 6

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands*

Session Conveners: *Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo*

15:40 - 16:00

We-J09-PM-17-1 Unwrapping the time axis with TRON: how data reduction turns into data inflation, and how we cope with it (Invited)

Oleg Smirnov (1, 2); Simon Perkins (2, 1); Hertzog Bester (2, 1); Jonathan Kenyon (1)
(1) *Rhodes University (South Africa)*; (2) *SARAO (South Africa)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TPJB6281>

16:00 - 16:20

We-J09-PM-17-2 GMRT Beam data Preparation and Reduction Pipeline (GBPREP): A solution to archive petabytes of beam data and facilitate science using reduced products

Yogesh Maan (1); Kavya Shaji (2); Debabrata Deb (3)

(1) *National Centre for Radio Astrophysics TIFR (India)*; (2) *The University of Sydney (Australia)*; (3) *Centre for Space Research (South Africa)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IRQN8137>

16:20 - 16:40

We-J09-PM-17-3 A Hybrid Neural Network and Deterministic Pipeline for Automated Line Data Extraction from Large-Scale Extragalactic HI Surveys

Panagiotis Petridis (1); Padelis Papadopoulos (1)

(1) *Aristotle University of Thessaloniki (Greece)*

Link to paper: <https://doi.org/10.46620/26-0115>

Room K

K09: Advances in computational modeling for bioelectromagnetics

Session Chairs: *Tomoaki Nagaoka, National Institute of Information and Communications Technology, Japan; Kun Li, The University of Electro-Communications, Japan*

Session Conveners: *Emily Porter, Tomoaki Nagaoka, Lars Ole Fichte, Kun Li*

15:40 - 16:00

We-K09-PM-17-1 Development of an Automated FDTD Framework for Epidemiological RF SAR Dosimetry Enabling Extensive Human Body Posture Modeling (Invited)

Takashi Hikage (1); Nishimura Toshihiko (1); Kashiwa Tatsuya (2); Tamura Naomi (1); Ait Bama Yu (1); Ikeda Atsuko (1); Kishi Reiko (1)

(1) *Hokkaido University (Japan)*; (2) *Kitami Institute of Technology (Japan)*; (1) *Hokkaido University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDIK4021>

16:00 - 16:20

We-K09-PM-17-2 Graph Neural Network for RF Induced Spatial Distribution of Temperature Rise in Human Body

Vardhan Harsha (1); Naina Narang (1)

(1) *GITAM Deemed to be University (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DYLP9443>

16:20 - 16:40

We-K09-PM-17-3 Evaluation of Human Exposure by Multiple Frequencies Radio Waves Including the Millimeter Wave Band

Homei Fujita (1, 2); Kazuyuki Saito (2, 1); Masaharu Takahashi (2); Tomoaki Nagaoka (1)

(1) *National Institute of Information and Communications Technology (Japan)*; (2) *Chiba University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJVL6423>

Starting time between 16:40 - 17:39

Room A

A13-2: Time & Frequency Transfer Techniques and Precision Geolocation - Part 2

Session Chairs: Dirk Piester, *Physikalisch-Technische Bundesanstalt (PTB), Germany*; Demetrios Matsakis, *Masterclock, Inc., United States*

Session Conveners: Michael Wouters, H T Lin, Thayatip Thongtan, Dirk Piester, Joseph Achkar, Giovanna Signorile, Parameswar Banerjee

16:40 - 17:00

We-A13-PM-23-1 Comparative Evaluation of Pulse Blanking Techniques for Mitigation of Pulsed Interference in NavIC and GNSS Receivers

Aakanksha Avnish Bhardwajan (1, 2); Prem Ranjan Dubey (1); Sharda Vashisth (2); Amitava Sen Gupta (2)

(1) *ISRO Telemetry Tracking & Command Network (ISTRAC/ISRO) (India)*; (2) *North Cap University (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UIUU7936>

17:00 - 17:20

We-A13-PM-23-2 Strategy for improving noise performance in NavIC Ground Reference Receiver

Suresh Dakkumalla (1); Subramanya Ganesh T (1); Sharda Vashisth (2); Amitava Sen Gupta (2)

(1) *ISRO Telemetry Tracking & Command Network (ISTRAC/ISRO) (India)*; (2) *North Cap University (India)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HWFU8072>

Room B1

B05-2: Propagation and scattering: advances, trends and new applications - Part 2

Session Chairs: Thomas Kürner, *Technische Universität Braunschweig, Germany*; Michela Longhi, *Niccolò Cusano University, Italy*

Session Conveners: Danilo Erricolo, Thomas Kuerner, Guido Lombardi

16:40 - 17:00

We-B05-PM-23-1 Beam Widening in Resonant Cavity Antenna Using Phase-Gradient Metamaterial for 6G Communication Applications

Mohammad Nasrat Zaquimi (1); Syed Muzahir Abbas (1); Subhas Mukhopadhyay (1)

(1) *Macquarie University (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/PUBM9706>

17:00 - 17:20

We-B05-PM-23-2 Deriving Tropospheric Attenuation from Low Earth Orbit Satellite Microwave Links

Yiyun Wu (1); Lorenzo Luini (2); Chen Zhou (1)
(1) Wuhan University (China); (2) Politecnico di Milano (Italy); (1) Wuhan University (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/QVBN4412>

17:20 - 17:40

We-B05-PM-23-3 The Effects of Ice Clouds on EHF Wave Scattering and Attenuation

Theodor Fedor Yudachev (1); Pinhasi Yosef (1); Gad A. Pinhasi (1); Yosef Golovachev (2)
(1) Ariel University (Israel); (2) Jerusalem College of Technology (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ELZH6526>

Room B2

B01-2: Electromagnetic theory - Part 2

Session Chairs: Daniel Sjöberg, Lund University, Sweden; Henrik Wallén, Aalto University, Finland; Mariana Dalarsson, KTH, Sweden
Session Conveners: Daniel Sjöberg, Henrik Wallén, Mariana Dalarsson

16:40 - 17:00

We-B01-PM-23-1 Educational Use of Primed and Unprimed Position Unit Vectors in Gradient-Based Electromagnetics

Steven Weiss (1)
(1) Antenna Systems Consultants, LLC (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FBDS8108>

17:20 - 17:40

We-B01-PM-23-3 A sign in space: An interdisciplinary exploration of the potential reception of an extraterrestrial signal

Daniela De Paulis (1)
(1) SETI Institute (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PUYM8713>

Room C

C09-2: Synthetic aperture radar (SAR) signal processing: Techniques and applications - Part 2

Session Chairs: Ajeet Kumar, Radar and Surveillance Systems (RaSS), National Laboratory of CNIT, Italy; Hossein Amir, CNIT, Italy; Rakesh Sharma, National Institute of Technology Hamirpur, India
Session Conveners: Ajeet Kumar, Amir Hossein, Rakesh Sharma

16:40 - 17:00

We-C09-PM-23-1 Entropy-Guided Deep Supervision Speckle Aware Filtering for PolSAR Imagery (Invited)

Devendhar Gogula (1); Rakesh Sharma (1)
(1) National Institute of Technology Hamirpur (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ONXX5070>

17:00 - 17:20

We-C09-PM-23-2 Evaluation of Polarimetric SAR Speckle Filters for Lunar Crater Detection and Mapping (Invited)

Aditya Kumar Verma (1); Ajeet Kumar (2); Rakesh Sharma (1)
(1) National Institute of Technology Hamirpur (India); (2) Radar and Surveillance Systems (RaSS), National Laboratory of CNIT (Italy); (1) National Institute of Technology Hamirpur (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PMAA9083>

17:20 - 17:40

We-C09-PM-23-3 A Physically Consistent Hybrid-Pol Three-Component Decomposition Model for Land Cover Classification

Avinash Bhatt (1); Ajeet Kumar (2); Tushar Goel (1)
(1) National Institute of Technology Uttarakhand (India); (2) Radar and Surveillance Systems (RaSS), National Laboratory of CNIT (Italy); (1) National Institute of Technology Uttarakhand (India)

Link to paper: <https://doi.org/10.46620/26-0063>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/XHkSo7cTfr6cC8P>

Room F

F03-4: Remote Sensing of Earth and Planetary Atmospheres - Part 4

Session Chairs: Animesh Maitra, University of Calcutta, India; Gargi Rakshit, India Meteorological Department, India

Session Conveners: Animesh Maitra, Tomoo Ushio

16:40 - 17:00

We-F03-PM-23-1 Characteristics of vertical air motion in the vicinity of monsoon jet streams using direct measurements from Cochin Stratosphere-Troposphere Radar

Nabarun Poddar (1, 2); Siddarth Shankar Das (1); Abhilash S (3); Rakesh V (3)
(1) Space Physics Laboratory, Vikram Sarabhai Space Centre (India); (2) Department of Physics, University of Kerala (India); (3) ACARR, Cochin University of Science and Technology (India)

Link to paper: <https://doi.org/10.46620/26-0109>

17:00 - 17:20

We-F03-PM-23-2 Narrowest Tropical Belt over the Boreal Winter Eastern Pacific: Evidence from Radio Occultation Measurements

Anjana U (1); Kishore Kumar Karanam (1)
(1) Space Physics Laboratory, Vikram Sarabhai Space Centre (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CNFZ5567>

Room G1

G13-4: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 4

Session Chairs: Vincenzo Romano, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Iwona Stanislawski, Centrum Badan Kosmicznych PAN, Poland; Anthea Coster, MIT Haystack Observatory, United States

Session Conveners: Vincenzo Romano, Iwona Stanislawski, Anthea Coster

16:40 - 17:00

We-G13-PM-23-1 Ground-Based and In-Situ Observations of the Mid- and Sub-Auroral Ionosphere Toward Operational Applications (Invited)

Barbara Matyjasiak (1); Dorota Przepiorka-Skup (1); Hanna Rothkaehl (1); Mariusz Pozoga (1); Marcin Grzesiak (1)
(1) Space Research Centre of the Polish Academy of Sciences (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WWYG1229>

17:00 - 17:20

We-G13-PM-23-2 Development of Operational Space Weather Capabilities in Kenya: Integrating Monitoring and Forecasting Systems

Mary Dusabe (1, 2)
(1) Kenya Space Agency (Kenya); (2) Jomo Kenyatta University (Kenya)

Link to paper: <https://doi.org/10.46620/26-0124>

17:20 - 17:40

We-G13-PM-23-3 Real-time detection of solar flares from ground-based VLF waves

Pauline Teyssere (1); Carine Briand (1); Morris Cohen (2)
(1) *Observatoire de Paris-PSL (France)*; (2) *Georgia Institute of Technology (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AVAX8586>

Room G2

G10-6: Advances in Irregularities and Scintillation Studies - Part 6

Session Chairs: Luca Spogli, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Jayachandran P. Thayyil, *University of New Brunswick, Canada*; Rebecca Ghidoni, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*

Session Conveners: Luca Spogli, Kshitija Deshpande, P. T. Jayachandran, Daria Kotova

16:40 - 17:00

We-G10-PM-23-1 The Leptokurtotic Nature of Low-Latitude GNSS Scintillation: A Multiscale Analysis

Luca Spogli (1); Karim Meziane (2); P.T. Jayachandran (2); Emanuele Pica (1); Antonio Cicone (3); Lucilla Alfonsi (1)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *University of New Brunswick (Canada)*; (3) *University of L'Aquila (Italy)*; (1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BEFQ2519>

17:00 - 17:20

We-G10-PM-23-2 Equatorial Plasma Bubble Velocity Estimation over Southeast Asia

Hugo Leray (1); Michael Dellaiera (1); Pasumarthi Babu Sree Harsha (2); Dmytro Vasylyev (2); Koen Mouthaan (1)
(1) *National University of Singapore (Singapore)*; (2) *German Aerospace Center (DLR) (Germany)*; (1) *National University of Singapore (Singapore)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/HKQK1060>

17:20 - 17:40

We-G10-PM-23-3 Characterizing the Day-to-day Variability in the Occurrence of Equatorial Spread-F and Nighttime Ionospheric F-region Field-aligned Irregularities by Utilizing Statistical Combinatorics Analysis

Rezy Pradipta (1); Dyah Martiningrum (2); Prayitno Abadi (2); Sri Ekawati (2); Suhaila Buhari (3)
(1) *Boston College (United States)*; (2) *National Research and Innovation Agency (Indonesia)*; (3) *Universiti Teknologi Malaysia (Malaysia)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZXRT5812>

Room H

HG1-3: Small satellites, suborbital experiments, and new instruments for near-Earth space science - Part 3

Session Chairs: Robert Marshall, University of Colorado Boulder, United States; Bruce Fritz, Naval Research Laboratory, United States

Session Conveners: Robert Marshall, Bruce Fritz, David Malaspina

16:40 - 17:00

We-HG1-PM-23-1 1U-Sized Plasma Wave Experiment designed for investigating interactions between microwaves and ionospheric plasmas

Hirotsugu Kojima (1); Satoshi Kurita (1); Hiromune Ishii (1); Tomohiro Tanaka (1); Yoshiya Kasahara (2); Keito Yoshida (2); Shoya Matsuda (2); Masayuki Fujii (3); Kazuki Watanabe (4)

(1) Kyoto University (Japan); (2) Kanazawa University (Japan); (3) FAM Science Co., Ltd. (Japan); (4) WEL Research Co., Ltd. (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJKW2625>

17:00 - 17:20

We-HG1-PM-23-2 Foresail-1 Prime Space Science Mission First Months in Orbit

Jaan Praks (1); Marius Anger (1); Topi Rätty (1); Klaus Kivirikko (1); Ville Lunden (1); Emilia Kilpua (2); Minna Palmroth (2); Rami Vainio (3); Pekka Janhunen (4)

(1) Aalto University (Finland); (2) University of Helsinki (Finland); (3) University of Turku (Finland); (4) Finnish Meteorological Institute (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YWDD5486>

17:20 - 17:40

We-HG1-PM-23-3 VLF Magnetic Field Receiver Design for Sounding Rocket Missions

Taylor Lindley (1); Hunter Burch (1)

(1) Auburn University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CUNJ7528>

Room J1

J09-7: Post-correlation signal processing: Big Data and AI - Part 7

Session Chairs: Stefan Wijnholds, ASTRON, Netherlands

Session Conveners: Stefan J. Wijnholds, Anna Scaife, Maxim Voronkov, Miguel Garcamo

16:40 - 17:00

We-J09-PM-23-1 A Lightweight U-Net Architecture for Dynamic 21 cm Spectral Line Masking for Robust Baseline Subtraction

Dimitrios Pakakis (1); Padelis Papadopoulos (1)

(1) Aristotle University of Thessaloniki (Greece)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DMTH9290>

17:00 - 17:20

We-J09-PM-23-2 Descriptive tagging of radio galaxies using source symmetry

Trienko Grobler (1); Wynand Van Staden (1)

(1) Stellenbosch University (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LLRN5987>

Room K

KA-1: Methods and novel technologies for absorbed/epithelial power density assessment above 6 GHz - Part 1

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kun Li, The University of Electro-Communications, Japan

Session Conveners: Maxim Zhadobov, Paulraj Rajamani, Amitava Sen Gupta, Francesca Apollonio

16:40 - 17:00

We-KA-PM-23-1 Novel Validation Approach for Absorbed Power Density Assessment Systems in the 10--45 GHz Frequency Range

Ninad Chitnis (1, 2); Sven Kühn (1); Niels Kuster (1, 2)

(1) Foundation for Research on Information Technologies in Society (Switzerland); (2) ETH Zurich (Switzerland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AHNS7312>

17:00 - 17:20

We-KA-PM-23-2 Estimation of Absorbed Power Density at 7 GHz via PWS-based Inverse Reconstruction

Yuma Ueda (1); Kun Li (1); Takashi Hikage (2); Hiroshi Masuda (3); Akiko Nagai (4); Kenji Taguchi (5)

(1) The University of Electro-Communications (Japan); (2) Hokkaido University (Japan); (3) Kurume University School of Medicine (Japan); (4) Aichi-Gakuin University School of Dentistry (Japan); (5) Kitami Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IGBC2929>

Starting time between 17:40 - 20:00

Room A

ACCA-2: Commission A - Coordinating Activities Meeting - Part 2

Session Chairs: Amitava Sen Gupta, URSI Commission A Chair

Room B1

BCCA-2: Commission B - Coordinating Activities Meeting - Part 2

Session Chairs: Henrik Wallen, URSI Commission B Chair

Room C

CCCA-2: Commission C - Coordinating Activities Meeting - Part 2

Session Chairs: Kumar Vijay Mishra, URSI Commission C Chair

Room D

DCCA-2: Commission D - Coordinating Activities Meeting - Part 2

Session Chairs: Atsushi Kanno, URSI Commission D Chair

Room E

ECCA-2: Commission E - Coordinating Activities Meeting - Part 2

Session Chairs: Carlo Carobbi, URSI Commission E Chair

Room F

FCCA-2: Commission F - Coordinating Activities Meeting - Part 2

Session Chairs: Motoyuki Sato, URSI Commission F Chair

Room G1

GCCA-2: Commission G - Coordinating Activities Meeting - Part 2

Session Chairs: Keith Groves, URSI Commission G Chair

Room H

HCCA-2: Commission H - Coordinating Activities Meeting - Part 2

Session Chairs: Craig J. Rodger, URSI Commission H Chair

Room J1

JCCA-2: Commission J - Coordinating Activities Meeting - Part 2

Session Chairs: Stefan Wijnholds, URSI Commission J Chair

Room K

KCCA-2: Commission K - Coordinating Activities Meeting - Part 2

Session Chairs: Francesca Apollonio, URSI Commission K Chair

Thursday, 20 August 2026

Starting time between 08:00 - 09:29

Room A

A12-1: Time and Frequency Metrology, Phase Noise and Frequency Synthesis - Part 1

Session Chairs: Archita Hati, National Institute of Standards and Technology, United States; Amitava Sen Gupta, North Cap University, India

Session Conveners: Myoung-Sun Heo, Archita Hati, Claudio Calosso, Amitava Sen Gupta

08:30 - 08:50

Th-A12-AM-04-1 Advances in Frequency Metrology with Optical Frequency Combs (Invited)

Michele Giunta (1, 2); Frederik Böhle (1); Wolfgang Hänsel (1); Matthias Lezius (1); Marc Fischer (1); Ronald Holzwarth (1, 2)
(1) Menlo Systems GmbH (Germany); (2) Max-Planck-Institut für Quantenoptik (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AXMX5744>

08:50 - 09:10

Th-A12-AM-04-2 High Spectral Purity RF Synthesis via Parallelization of Digital Prescalers

Archita Hati (1); Craig Nelson (2, 1)
(1) National Institute of Standards and Technology (United States); (2) Frequency Electronics, Inc. (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XRIQ1633>

09:10 - 09:30

Th-A12-AM-04-3 Higher Order modes in X-Band Resonator with Axial Bragg Confinement

Craig Nelson (1, 2); Archita Hati (2)
(1) Frequency Electronics, Inc. (United States); (2) National Institute of Standards and Technology (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AWBT5512>

Room B1

B02-6: Antenna theory, design and measurements - Part 6

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

08:50 - 09:10

Th-B02-AM-04-2 Design of S-Band Circularly Polarized Antenna Using Sequentially Rotated Technique for CubeSat Applications

Chao-Hsiung Tseng (1); Po-Chuan Chang (1)
(1) National Yang Ming Chiao Tung University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/BYTG4721>

09:10 - 09:30

Th-B02-AM-04-3 Novel Approach to Minimize GNSS Antenna Sensitivity on Mounting Platforms

Veenu Tripathi (1); Christian Inderst (2); Simon Hehenberger (1); Wahid Elmarissi (1); Stefano Caizzzone (1, 3)
(1) German Aerospace Center (DLR) (Germany); (2) OTH Regensburg (Germany); (3) Technical University of Munich (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NMTW7105>

Room C

C19-1: On the dual use of communication networks - Part 1

Session Chairs: Grzegorz Bogdan, Warsaw University of Technology, Poland

Session Conveners: Adrian Kliks, Halina Tarasiuk

08:30 - 08:50

Th-C19-AM-04-1 AI-focused CIO Optimization Solutions for Better Handover in B5G Networks (Invited)

Mustafa Mohammed Hasan Alkalsh (1, 2); Adrian Kliks (1)

(1) Poznan University of Technology (Poland); (2) Nokia Solutions and Networks (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YXFJ8385>

08:50 - 09:10

Th-C19-AM-04-2 Characterization of GNSS Interference and its Impact on Air Transport: Poland Case Study

Dariusz Zmysłowski (1); Jan M. Kelner (1); Jacek Żygólski (2); Olga Kuszpyt (3); Tomasz Woźniak (3)

(1) Military University of Technology (Poland); (2) National Radio Frequency Agency (Poland); (3) Polish Air Navigation Services Agency (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HNFF2632>

09:10 - 09:30

Th-C19-AM-04-3 On the Layered Conflict Management in Virtualized Networks

Paweł Płaczekiewicz (1); Adrian Kliks (1); Łukasz Kułacz (1); Sotiris Spantideas (2);

Anastasios Giannopoulos (2); Engin Zeydan (3)

(1) Poznan University of Technology (Poland); (2) Four Dot Infinity (Greece); (3) Centre Tecnològic de Telecomunicacions de Catalunya (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UAGN5354>

Room D

HGE-1: Atmospheric, ionospheric, magnetospheric, and high energy effects of lightning discharges - Part 1

Session Chairs: Ivana Kolmasova, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic

Session Conveners: Ivana Kolmašová, Martin Fullekrug, Ningyu Liu

08:30 - 08:50

Th-HGE-AM-04-1 Lightning-Generated Specularly and Magnetospherically Reflected Whistlers Observed by the Van Allen Probes (RBSP): Location and Energy Correlations

Amani Reddy (1); Vikas Sonwalkar (1)

(1) University of Alaska (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LHXJ4682>

08:50 - 09:10

Th-HGE-AM-04-2 Whistler activity at Low Earth Altitudes in the Extremely Low Frequencies during the current solar cycle

Pierdavide Coisson (1); Robin Deborde (1); Louis Chauvet (1); Sasha Troncy (1); Martin Jenner (2); Gauthier Hulot (1)

(1) Université Paris Cité, Institut de physique du globe de Paris, CNRS (France); (2) Onera (France); (1) Université Paris Cité, Institut de physique du globe de Paris, CNRS (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JGVA6939>

09:10 - 09:30

- Th-HGE-AM-04-3 Potential of full-wave methods for simulating lightning generated whistlers**
Kateřina Rosická (1, 2); Ondřej Santolík (1, 2)
(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (2) Charles University (Czech Republic)*
Link to paper: <https://doi.org/10.46620/26-0057>

Room E

B12-1: Materials in electromagnetics - Part 1

- Session Chairs:* Andrey Osipov, German Aerospace Center (DLR), Germany; Paul Smith, Macquarie University, Australia
Session Conveners: Andrey Osipov, Paul Smith

08:30 - 08:50

- Th-B12-AM-04-1 Radar Absorbers with Carbon Nanotubes (Invited)**
Erik Buchenau (1); Andrey Osipov (1); Thomas Jagdhuber (1)
(1) *German Aerospace Center (DLR) (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CWME8030>

08:50 - 09:10

- Th-B12-AM-04-2 Homogenization of parabolic equation with spatially periodic coefficients and temporal quasi periodic variation (Invited)**
Niklas Wellander (1); Sébastien Guenneau (2); Liselott Flodén (3); Pernilla Johnsen (3); Marianne Olsson Lindberg (3); Jens Persson (3)
(1) *Swedish Defence Research Agency (Sweden); (2) Imperial College London (United Kingdom); (3) Mid Sweden University (Sweden)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AWTV8830>

09:10 - 09:30

- Th-B12-AM-04-3 Design and Analysis of a Miniaturized Polarization-Insensitive Absorptive–Transmissive–Absorptive (ATA) Resorber for Curved Radome Applications**
Akhila Gouda (1); Saptarshi Ghosh (1)
(1) *Indian Institute of Technology Indore (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/BHPQ3657>

Room F

F04-1: IEEE AP-S TC3: Measurements & Channel Characterisation for mmWave and THz Communications - Part 1

- Session Chairs:* Slawomir Ambroziak, Gdańsk University of Technology, Poland; Thomas Kürner, Technische Universität Braunschweig, Germany
Session Conveners: Slawomir Ambroziak, Thomas Kürner, Ke Guan

08:30 - 08:50

- Th-F04-AM-04-1 Impact of Reconfigurable Intelligent Surfaces on Indoor Propagation in the Millimetre-Wave Band (Invited)**
Monika Drozdowska (1); Sergio Micó-Rosa (1); Alvaro Villaescusa-Tebar (1); Narcis Cardona (1)
(1) *Universitat Politècnica de València (Spain)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/PGBR4137>

08:50 - 09:10

Th-F04-AM-04-2 Path Loss Modeling for Sub-THz Channel Measurements at 160 GHz in an Industrial Environment (Invited)

Alper Schultze (1); Mathis Schmieder (1); Ramez Askar (1); Michael Peter (1); Wilhelm Keusgen (2); Taro Eichler (3)

(1) *Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, HHI (Germany)*;

(2) *Technische Universität Berlin (Germany)*; (3) *Rohde & Schwarz (Germany)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SVBW5276>

09:10 - 09:30

Th-F04-AM-04-3 Sub-Terahertz Channel Measurements and Characterization in a Warehouse Environment at 234 GHz (Invited)

Peize Zhang (1); Siyuan Shao (1); Simon Cotton (1); Pekka Kyösti (2, 3)

(1) *Queen's University Belfast (United Kingdom)*; (2) *University of Oulu (Finland)*; (3)

Keysight Technologies Finland Oy (Finland)

Link to paper: <https://doi.org/10.46620/26-0095>

Room G1

G09-1: Machine Learning methods for ionospheric modelling - Part 1

Session Chairs: Claudio Cesaroni, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Ivan Galkin, *University of Massachusetts, United States*

Session Conveners: Claudio Cesaroni, Ivan Galkin, Yenca Migoya-Orue

08:30 - 08:50

Th-G09-AM-04-1 Transferable Deep Learning models for Pixel-Wise Recognition of Ionogram Layer Traces Using Synthetic Training Data

Ruslan Sherstyukov (1); Alexander Kozlovsky (1)

(1) *University of Oulu (Finland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VYWQ3021>

09:10 - 09:30

Th-G09-AM-04-3 Forecasting F2-Layer Electron Density Profiles from GIRO Ionosonde Data Using Machine Learning

Jakub Kołodziej (1); Maciej Kawka (1); Jarosław Wojtuń (1); Cezary Ziółkowski (1); Bogdan Uliasz (1); Jan Kelner (1)

(1) *Institute of Communications Systems, Faculty of Electronics, Military University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZSKZ1433>

Room G2

G08-1: Monitoring Global Space Weather with the International Meridian Circle Program - Part 1

Session Chairs: Qing-He Zhang, *National Space Science Center, Chinese Academy of Sciences, China*; Michel Blanc, *IRAP, Université de Toulouse, CNRS, CNES, France*

Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

08:30 - 08:50

Th-G08-AM-04-1 Progress Report on the IMCP: A Vision for the Next Solar Cycle, and Beyond

Qing-He Zhang (1); Chi Wang (1); Michel Blanc (2); Wiliam Liu (1); Jiyao Xu (1); Xuhui Shen (1); Hui Li (1); Liwen Ren (1)

(1) *National Space Science Center, Chinese Academy of Sciences (China)*; (2) *IRAP, Université de Toulouse, CNRS, CNES (France)*; (1) *National Space Science Center, Chinese Academy of Sciences (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ELXS6658>

08:50 - 09:10

Th-G08-AM-04-2 EISCAT_3D – Tri-static Incoherent Scatter Radar in the European Arctic

Anders Tjulin (1); Thomas Ulich (1); Philip Pålsson (1); Johan Svensson (1)
(1) EISCAT AB (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PTGL6256>

09:10 - 09:30

Th-G08-AM-04-3 E-SWAN and its role in federating the Space Weather and Space Climate community (Invited)

Luca Spogli (1)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UNJR7680>

Room H

**HG1-4: Small satellites, suborbital experiments, and new instruments for near-Earth space science
- Part 4**

Session Chairs: Robert Marshall, University of Colorado Boulder, United States; Bruce Fritz, Naval Research Laboratory, United States

Session Conveners: Robert Marshall, Bruce Fritz, David Malaspina

08:30 - 08:50

Th-HG1-AM-04-1 LEO observations of space environment with the upcoming ESA Scout NanoMagSat nanosatellite constellation

Gauthier Hulot (1); Pierdavide Coisson (1); Jean-Michel Léger (2); Thomas Jager (2); Lasse B. N. Clausen (3); John L. Jørgensen (4); Robin Deborde (1); Maximilien Salinas (1); Louis Chauvet (1); Florian Deconinck (5); Fabrice Cipriani (6)

(1) Institut de physique du globe de Paris (France); (2) CEA (France); (3) University of Oslo (Norway); (4) Technical University of Denmark (Denmark); (1) Institut de physique du globe de Paris (France); (5) Open Cosmos Ltd. (United Kingdom); (6) European Space Agency ESTEC (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PZWJ5352>

08:50 - 09:10

Th-HG1-AM-04-2 New Mexico Tech Space Weather Explorer

Anders Jorgensen (1); Eliana Armstrong (1); Cody Balish (1); Hien Vo Bich (2); James Clark (1); Emiliano Diaz (1); Ashok K. Ghosh (1); Nikolai Hayes (1); Haven Hennelly (1); Elissa Jones (1); Ethan Lazar (1); Janos Lichtenberger (3); Andrew Loera (1); Benjamin Marson (1); Josiah Martinez (1); Colton Rehn (1); Jared Robbins (1); David Robles (1); Seda Senay (1); Andrew Sieber (1); Kevin Staley (1); Dillon Wish (1)

(1) New Mexico Institute of Mining and Technology (United States); (2) Vietnamese-German University (Vietnam); (1) New Mexico Institute of Mining and Technology (United States); (3) Eotvos University (Hungary); (1) New Mexico Institute of Mining and Technology (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IZCM2997>

09:10 - 09:30

Th-HG1-AM-04-3 The ORPHEUS Mission - A Collaborative Pathfinder for Space Domain Characterization and Ionospheric Research

Bruce Fritz (1); Andrew Nicholas (1); Kit Grange (2); Daniel Lavigne (3); Alex Agathangelou (2); Gemma Attrill (2); Robert Boucher (3); Scott Budzien (1); Kenneth

Dymond (1); Alex Gannon (2); Christine McCullough (2); Graham Routledge (2); Andrew Stephan (1); Andy Wells (2)
(1) Naval Research Laboratory (United States); (2) Defence Science and Technology Laboratory (United Kingdom); (3) Defence Research and Development Canada (Canada); (2) Defence Science and Technology Laboratory (United Kingdom); (3) Defence Research and Development Canada (Canada); (1) Naval Research Laboratory (United States); (2) Defence Science and Technology Laboratory (United Kingdom); (1) Naval Research Laboratory (United States); (2) Defence Science and Technology Laboratory (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XFMQ7796>

Room J1

J10-1: Latest news and observatory reports - Part 1

Session Chairs: Stefan Wijnholds, *ASTRON, Netherlands*; Yashwant Gupta, *National Centre for Radio Astrophysics TIFR, India*

Session Conveners: Stefan J. Wijnholds, *Yashwant Gupta*

08:30 - 08:50

Th-J10-AM-04-1 SKA-Low Construction Progress (Invited)

Marco Caiazzo (1, 2); Pearce Sarah (1, 3); Schinckel Antony (1, 3); Hawke John (1, 2); Lloro Ivan (1)
(1) SKA Observatory (United Kingdom); (2) CSIRO, Space and Astronomy (Australia); (3) CSIRO (Australia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FCBB3922>

08:50 - 09:10

Th-J10-AM-04-2 Updates on SKA-Mid Science Commissioning

Elizabeth Adams (1); Ian Heywood (2); Shin'ichiro Asayama (2); Justin Jonas (1); Robert Laing (2); Maciej Serylak (2)
(1) SKA Observatory (South Africa); (2) SKA Observatory (United Kingdom); (1) SKA Observatory (South Africa); (2) SKA Observatory (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NUPO9821>

09:10 - 09:30

Th-J10-AM-04-3 LOFAR ERIC: Status, Expansion, and the LOFAR 2.0 Upgrade

Michiel Van Haarlem (1); Roberto Pizzo (2); Wim Van Cappellen (2)
(1) LOFAR ERIC (Netherlands); (2) ASTRON (Netherlands)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LSMC5200>

Room P

WS-D: DRAMA

Session Chairs: Giuliano Manara, *University of Pisa, Italy*

08:30 - 08:50

Th-WS-D-AM-04-1 The INGV Platform for Earth Observation Supporting Natural Hazard Monitoring and Disaster Risk Management (Invited)

Vincenzo Romano (1); Emanuele Pica (1); Carlo Marcocci (1); Massimo Musacchio (1); Massimo Viola (1); Fabrizia Maria Buongiorno (1)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/UVXB1462>

08:50 - 09:10

Th-WS-D-AM-04-2 Radar as a Key Enabler for Disaster Risk Reduction and Emergency Response (Invited)

Andreas Danklmayer (1)

(1) *Fraunhofer FHR (Germany)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UWXC1996>

09:10 - 09:30

Th-WS-D-AM-04-3 Experimental Characterization of 14 GHz Building Entry Loss for Disaster Emergency Networks (Invited)

Sana Salous (1); Jiahao Hu (1); Yubei He (1); Amar Al-Jzari (1)

(1) *University of Durham (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KYKU6031>

09:30 - 09:50

Th-WS-D-AM-04-4 Ash-Induced Attenuation Study for Improving Volcanic Eruption Early Warning: a Probabilistic Approach for Ground Station Site Selection (Invited)

Ottavia Gherardini (1); Emanuele Maria Sciortino (1); Fabiola Sapienza (1); Alessandro Piras (1); Filippo Giannetti (1)

(1) *Department of Information Engineering, University of Pisa (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/LVHA7311>

Starting time between 08:00 - 09:29

Room B2

B10-1: Machine learning and optimization techniques in electromagnetics: new trends and novel applications - Part 1

Session Chairs: *Sembiam R. Rengarajan, California State University Northridge, United States; Ahmad Hoorfar, Villanova University, United States*

Session Conveners: *Sembiam R. Rengarajan, Christos G. Christodoulou, Ahmad Hoorfar*

08:50 - 09:10

Th-B10-AM-06-1 Prior Knowledge-Guided Deep Learning-Assisted Optimization Method for Broadband Metasurface Mushroom Antenna

Peiqin Liu (1); Jingyi Shi (2); Zhi Ning Chen (1)

(1) *National University of Singapore (Singapore)*; (2) *City University of Hong Kong (Hong Kong)*; (1) *National University of Singapore (Singapore)*

Link to paper: <https://doi.org/10.46620/26-0111>

09:10 - 09:30

Th-B10-AM-06-2 Efficient Modelling of Mutual Coupling for Large-Scale Antenna Arrays Using Physics-Guided Neural Network

Can Wang (1); Yanming Zhang (1); Steven Gao (1)

(1) *The Chinese University of Hong Kong (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QOYO6051>

Room J2

J08-1: Real-time processing systems - Part 1

Session Chairs: Morag Brown, ASTRON, Netherlands Institute for Radio Astronomy, Netherlands

Session Conveners: Andrew Van Der Byl, Morag Brown, Danny Price

08:50 - 09:10

Th-J08-AM-06-1 Radio Frequency Interference Mitigation in Radio Astronomy using Spatial Filtering, GPUs, and Phased Array Feeds

Justin Smallwood (1); Adam Deller (1, 2); Andrew Jameson (2); Chris Phillips (3); Matthew Bailes (1, 2)

(1) Swinburne University (Australia); (2) Fourier Space (Australia); (3) CSIRO (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NVXA4016>

09:10 - 09:30

Th-J08-AM-06-2 An RFSoc-based Radio Telescope Backend Receiver for Galileo Satellite Monitoring

Morag Brown (1)

(1) ASTRON (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EPYD7945>

Room K

K10-1: Non invasive neuronal stimulation: Modeling, Optimization, and Emerging Techniques - Part 1

Session Chairs: Micaela Liberti, Sapienza University of Rome, Italy; Niels Kuster, Foundation for Research on Information Technologies in Society, Switzerland; Masaki Sekino, The University of Tokyo, Japan

Session Conveners: Micaela Liberti, Niels Kuster, Masaki Sekino

08:30 - 08:50

Th-K10-AM-06-1 Optimization of Electromagnetic Fields in the Brain for Noninvasive Neuromodulation

Masaki Sekino (1); Anna Iino (1); Hye Min Kim (1); Xin Chen (1)

(1) Graduate School of Engineering, The University of Tokyo (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KEUT9543>

08:50 - 09:10

Th-K10-AM-06-2 Design of Durable Multi-Locus TMS-fMRI Helmet

Victor Salas-Moreno (1); José Antonio Vélchez-Membrilla (1); Carlos Rodríguez-Cordón (1); Ilkka Rissanen (2); Victor Hugo Souza (2, 3); Germán Álvarez (1); Clemente Cobos-Sánchez (1)

(1) University of Cádiz (Spain); (2) Aalto University (Finland); (3) Cortisys Ltd. (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PLVK8901>

09:10 - 09:30

Th-K10-AM-06-3 CoilLab: A Modular Platform for the Inverse Design and Optimization of High-Performance Magnetic Coils

Carlos Rodríguez-Cordón (1); José A. Vélchez Membrilla (1); Víctor Salas Moreno (1); Francisco Javier García-Pacheco (1); Clemente Cobos Sánchez (1)

(1) University of Cádiz (Spain)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ISCZ1724>

Starting time between 09:30 - 10:29

Room A

A12-2: Time and Frequency Metrology, Phase Noise and Frequency Synthesis - Part 2

Session Chairs: Archita Hati, National Institute of Standards and Technology, United States; Amitava Sen Gupta, North Cap University, India

Session Conveners: Myoung-Sun Heo, Archita Hati, Claudio Calosso, Amitava Sen Gupta

09:30 - 09:50

Th-A12-AM-10-1 A Versatile Frequency Synthesizer For Rubidium Atomic Clocks

Andrey Pluteshko (1)

(1) Advantex LLC (Russia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ICSL2124>

09:50 - 10:10

Th-A12-AM-10-2 A Comparison of Four N-Cornered Hat Techniques

Demetrios Matsakis (1); Guilio Tagliaferro (2)

(1) Masterclock, Inc. (United States); (2) International Bureau of Weight and Measures (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LAIE3183>

Room B1

B02-7: Antenna theory, design and measurements - Part 7

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

09:30 - 09:50

Th-B02-AM-10-1 Design and analysis of an L-band helical antenna with 3D-printed support

Hang Li (1); Grzegorz Bogdan (1)

(1) Warsaw University of Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SAQZ9377>

09:50 - 10:10

Th-B02-AM-10-2 Measured Performance of a Wideband Vivaldi Antenna for Pulsed RFI Measurements

Sandra Snyman (1, 2); Jacki Gilmore (2)

(1) SARA0 (South Africa); (2) Stellenbosch University (South Africa)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SOQL6400>

Room B2

B10-2: Machine learning and optimization techniques in electromagnetics: new trends and novel applications - Part 2

Session Chairs: Sembiam R. Rengarajan, California State University Northridge, United States; Ahmad Hoorfar, Villanova University, United States

Session Conveners: Sembiam R. Rengarajan, Christos G. Christodoulou, Ahmad Hoorfar

09:30 - 09:50

Th-B10-AM-10-1 From Profile to Field: Deep Learning-Based Forward Modeling of Electromagnetic Scattering in Subsurface Imaging (Invited)

Maryam Hajebi (1); Mohammad Azim Saraji (1); Ahmad Hoorfar (2)

(1) University of Hormozgan (Iran); (2) Villanova University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QDJO4392>

09:50 - 10:10

Th-B10-AM-10-2 Improved Untrained Imaging Network with Complex Attention and Periodic Regularization for Sparse Millimeter-Wave Imaging (Invited)

Chunyang Teng (1); Shiyong Li (1, 2); Guoqiang Zhao (1, 2); Houjun Sun (1, 2); Ahmad Hoorfar (3)
(1) *Beijing Institute of Technology (China)*; (2) *Tangshan Research Institute (China)*; (3) *Villanova University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FJXI2339>

Room C

C19-2: On the dual use of communication networks - Part 2

Session Chairs: *Grzegorz Bogdan, Warsaw University of Technology, Poland*

Session Conveners: *Adrian Kliks, Halina Tarasiuk*

09:30 - 09:50

Th-C19-AM-10-1 Resource Allocation for Semantic Communications in Unified Networks

Marcel Garczyk (1); Paweł Sroka (1)
(1) *Poznan University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UWMU2438>

09:50 - 10:10

Th-C19-AM-10-2 Resource Allocation in Wireless Networks Equipped with RISes and RESes

Adam Samorzewski (1); Adrian Kliks (1)
(1) *Poznan University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/OUZH7308>

Room D

HGE-2: Atmospheric, ionospheric, magnetospheric, and high energy effects of lightning discharges - Part 2

Session Chairs: *Ivana Kolmasova, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic*

Session Conveners: *Ivana Kolmašová, Martin Fullekrug, Ningyu Liu*

09:30 - 09:50

Th-HGE-AM-10-1 Blue Jets Mark Initiation and Termination of a Gamma Glow Burst with Excessive Positron Production (Invited)

Andrey Mezentsev (1); Martino Marisaldi (1); Nikolai Østgaard (1); David Sarria (1); Steven Cummer (2); Yunjiao Pu (2); Mason Quick (3); Timothy Lang (3); Eric Grove (4); Daniel Shy (5); Nikolai Lehtinen (1); Øystein Færder (1); Ingrid Engeland (1); Anders Fuglestad (1); Oscar Van der Velde (6)
(1) *University of Bergen (Norway)*; (2) *Duke University (United States)*; (3) *NASA Marshall Space Flight Center (United States)*; (4) *U.S. Naval Research Laboratory (United States)*; (5) *Naval Research Laboratory (United States)*; (1) *University of Bergen (Norway)*; (6) *Polytechnic University of Catalonia (Spain)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XORA9319>

09:50 - 10:10

Th-HGE-AM-10-2 Modeling of Thunderstorm Gamma-Ray Emissions Observed in the 2023 ALOFT Campaign

Nikolai Lehtinen (1); Øystein Færder (1); David Sarria (1); Andrey Mezentsev (1); Martino Marisaldi (1); Nikolai Østgaard (1)
(1) *University of Bergen (Norway)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UADT7398>

Room E

B12-2: Materials in electromagnetics - Part 2

Session Chairs: Andrey Osipov, German Aerospace Center (DLR), Germany; Paul Smith, Macquarie University, Australia

Session Conveners: Andrey Osipov, Paul Smith

09:30 - 09:50

Th-B12-AM-10-1 Conformal Hexagonal Double-Ring FSS Design for Arbitrary Shaped Surfaces

Abdullah Kaya (1); Berk Bural (2); Onat Mert Taşçı (2); Funda Akleman (1)
(1) Istanbul Technical University (Turkey); (2) ASELSAN (Turkey); (1) Istanbul Technical University (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VKAX4259>

09:50 - 10:10

Th-B12-AM-10-2 Optically Transparent and Broadband Frequency Selective Surface Absorber Using AgNW Films (Invited)

Shaikha AlDhaheri (1); Ming Dong (1); Papa Leye (1); Islem Yahi (1); Felix Vega (1); Chaouki Kasmi (1)
(1) Technology Innovation Institute (United Arab Emirates)

Link to paper: <https://doi.org/10.46620/URSIGASS26/USCW2219>

Room F

F04-2: IEEE AP-S TC3: Measurements & Channel Characterisation for mmWave and THz Communications - Part 2

Session Chairs: Slawomir Ambroziak, Gdańsk University of Technology, Poland; Thomas Kürner, Technische Universität Braunschweig, Germany

Session Conveners: Slawomir Ambroziak, Thomas Kürner, Ke Guan

09:30 - 09:50

Th-F04-AM-10-1 Reducing Dispersion in Polymer Microwave Fiber Systems through Intentional Higher Order Mode Radiation in Multi-Mode-Propagation Areas

Stefan Wögerbauer (1); Lukas Ebner (1); Helmut Paulitsch (1); Michael Gadringer (1)
(1) Graz University of Technology, Institute of Microwave and Photonic Engineering (Austria)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SQNJ3220>

09:50 - 10:10

Th-F04-AM-10-2 Wideband Measurements of Human Blockage in Office Environment

Sana Salous (1); Yubei He (1); Jiahao Hu (1); Amar Al-Jzari (1)
(1) University of Durham (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AMNV1138>

Room G1

G09-2: Machine Learning methods for ionospheric modelling - Part 2

Session Chairs: Claudio Cesaroni, Istituto Nazionale di Geofisica e Vulcanologia, Italy; Ivan Galkin, University of Massachusetts, United States

Session Conveners: Claudio Cesaroni, Ivan Galkin, Yenca Migoya-Orue

09:30 - 09:50

Th-G09-AM-10-1 Forecasting Equatorial Ionospheric Scintillation by Emulating Plume Models with Computer Vision

Matthew Proctor (1, 2); John Retterer (1); Eirini Eleni Tsiropoulou (3)
(1) Boston College (United States); (2) University of New Mexico (United States); (3) Arizona State University (United States)

Link to paper: <https://doi.org/10.46620/26-0025>

09:50 - 10:10

Th-G09-AM-10-2 Machine Learning–Based High-Resolution Forecasting of Ionospheric Total Electron Content Using a Hybrid Deep Ensemble (HTR-X++)

Ashik Paul (1); Amit Kumar Chakraborty (2)
(1) *Institute of Radio Physics and Electronics, University of Calcutta (India)*; (2) *Dream Institute of Technology (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CWSM6412>

Room G2

G08-2: Monitoring Global Space Weather with the International Meridian Circle Program - Part 2

Session Chairs: Qing-He Zhang, *National Space Science Center, Chinese Academy of Sciences, China*;
Michel Blanc, *IRAP, Université de Toulouse, CNRS, CNES, France*
Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

09:30 - 09:50

Th-G08-AM-10-1 CBK PAN's Operational Space Weather Services for IMCP (Invited)

Iwona Stanislawski (1); Andriy Zalozovski (1, 2); Lukasz Tomasik (1); Artem Reznichenko (1, 3); Mariusz Pozoga (1)
(1) *Centrum Badan Kosmicznych Polskiej Akademii Nauk (Poland)*; (2) *Institute of Radio Astronomy of NAS of Ukraine, Natn Antarc Sci Center (Ukraine)*; (3) *Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UPED3922>

09:50 - 10:10

Th-G08-AM-10-2 INGV prospects for a major contribution to the IMCP project (Invited)

Luca Spogli (1)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MBNK6247>

Room H

HG1-5: Small satellites, suborbital experiments, and new instruments for near-Earth space science - Part 5

Session Chairs: Robert Marshall, *University of Colorado Boulder, United States*; Bruce Fritz, *Naval Research Laboratory, United States*
Session Conveners: Robert Marshall, Bruce Fritz, David Malaspina

09:30 - 09:50

Th-HG1-AM-10-1 Formulation of spacecraft antenna charging process including corpuscular charging

Miś Tomasz (1); Modelski Józef (2)
(1) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (2) *Warsaw University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VFKO8723>

09:50 - 10:10

Th-HG1-AM-10-2 Preliminary investigation of macroscopic Schottky effect on space plasma-measuring antennas

Miś Tomasz (1); Modelski Józef (2); Ciuba Maciej (2)
(1) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (2) *Warsaw University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VJTX4780>

Room J1

J10-2: Latest news and observatory reports - Part 2

Session Chairs: *Stefan Wijnholds, ASTRON, Netherlands; Yashwant Gupta, National Centre for Radio Astrophysics TIFR, India*

Session Conveners: *Stefan J. Wijnholds, Yashwant Gupta*

09:30 - 09:50

Th-J10-AM-10-1 Observatory update for the Murchison Widefield Array (MWA)

Steven Tingay (1)

(1) Curtin University (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PVHB2238>

09:50 - 10:10

Th-J10-AM-10-2 Observatory updates from NCRA (Invited)

Yashwant Gupta (1)

(1) National Centre for Radio Astrophysics TIFR (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JDXL6340>

Room J2

J08-2: Real-time processing systems - Part 2

Session Chairs: *Morag Brown, ASTRON, Netherlands Institute for Radio Astronomy, Netherlands*

Session Conveners: *Andrew Van Der Byl, Morag Brown, Danny Price*

09:30 - 09:50

Th-J08-AM-10-1 Real-time data processing opportunities using novel correlation algorithms for radio interferometers

Adrian P. Schirra (1, 2); Anton Nöbauer (1, 3); Julian Rüstig (1, 3); Marie Diesenberger (4, 3); Torsten Enßlin (4, 1)

(1) German Centre for Astrophysics (Germany); (2) TUD Dresden University of Technology (Germany); (3) Ludwig Maximilian University of Munich (Germany); (4) Max Planck Institute for Astrophysics (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TDXE6129>

09:50 - 10:10

Th-J08-AM-10-2 Efficient FPGA Implementation of Inverse Polyphase Filter Banks for Real-Time Pulsar Signal Reconstruction

Jubin Mitra (1); Kristian Zarbadami (1)

(1) Physics Department, University of Oxford (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/USKW1834>

Room K

K10-2: Non invasive neuronal stimulation: Modeling, Optimization, and Emerging Techniques - Part 2

Session Chairs: *Micaela Liberti, Sapienza University of Rome, Italy; Niels Kuster, Foundation for Research on Information Technologies in Society, Switzerland; Masaki Sekino, The University of Tokyo, Japan*

Session Conveners: *Micaela Liberti, Niels Kuster, Masaki Sekino*

09:30 - 09:50

Th-K10-AM-10-1 Orientation-Selective Temporal Interference for Non-Invasive Deep Brain Stimulation

Mika Söderström (1); Mariana Dalarsson (1)

(1) KTH Royal Institute of Technology (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NVAF9815>

09:50 - 10:10

Th-K10-AM-10-2 Numerical Dosimetry of Cerebellar rTMS in Neonatal Mice within the NEAT-MOVE Project

Alessandra Conforti (1); Micol Colella (1); Francesco Pio Ercolino (2); Marialaura De Grazia (2); Alberto Arturo Vergani (2); Daniele Linaro (3); Egidio D'Angelo (2); Claudia Casellato (2); Francesca Apollonio (1); Micaela Liberti (1)
(1) *ICEmB DIET - Sapienza University of Rome (Italy)*; (2) *Università degli Studi di Pavia (Italy)*; (3) *Politecnico di Milano (Italy)*; (2) *Università degli Studi di Pavia (Italy)*; (1) *ICEmB DIET - Sapienza University of Rome (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EZTU8546>

Starting time between 10:30 - 11:29

Room A

A11-1: Realization and Dissemination of Time Scales and Standard Frequencies - Part 1

Session Chairs: Demetrios Matsakis, Masterclock, Inc., United States; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Hiroyuki Ito, Jose Mauricio Lopez, Dirk Piester, Demetrios Matsakis, Ashish Agarwal

10:30 - 10:50

Th-A11-AM-16-1 Making UTC a continuous time scale: the probability of a negative leap second and the next steps at the General Conference on Weights and Measures in 2026

Patrizia Tavella (1); Tetsuya Ido (2); Amitava Sen Gupta (3)
(1) *BIPM (France)*; (2) *NICT (Japan)*; (3) *North Cap University (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YOJQ4060>

10:50 - 11:10

Th-A11-AM-16-2 Using Commercial Hardware to Improve Real-Time UTC(k) Intercomparisons and Enabling Turnkey Time Measurement Services

Andrew Novick (1); Benjamin Pera (1)
(1) *National Institute of Standards and Technology (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/THWB7270>

11:10 - 11:30

Th-A11-AM-16-3 Public Dissemination of UTC(BSJ): A Web-Based Architecture for National Time Standards Access (Invited)

Terrence Jones (1); Demetrios Matsakis (2); Andrew Novick (3)
(1) *Bureau of Standards Jamaica (Jamaica)*; (2) *Masterclock, Inc. (United States)*; (3) *NIST (United States)*
Link to paper: <https://doi.org/10.46620/26-0123>

Room B1

B08-1: Mathematical modelling of EM problems - Part 1

Session Chairs: Paul Smith, Macquarie University, Australia; Piergiorgio L. E. Uslenghi, University of Illinois Chicago, United States

Session Conveners: Paul Smith, George Uslenghi

10:30 - 10:50

Th-B08-AM-16-1 Solution for the Motion of a Charged Particle Through a Parallel-Plate Capacitor (Invited)

Yaghjian Arthur (1)
(1) *Electromagnetics Research (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/GQJJ4546>

10:50 - 11:10

Th-B08-AM-16-2 Electrodynamics and Invariant Spectral Properties of Rotating Scatterers (Invited)

Ben Steinberg (1); Tomer Geva (1)
(1) Tel Aviv University (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BDEN9210>

11:10 - 11:30

Th-B08-AM-16-3--Domain Analysis of Electromagnetic Scattering by Moving Media Using the Quasi Stationary Born Approximation

Kirill Zeyde (1); Mirco Raffetto (1)
(1) University of Genoa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DSZD2453>

Room B2

B15-5: Metamaterials and metasurfaces to control and tailor wave propagation - Part 5

Session Chairs: Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy

Session Conveners: Victor Pacheco-Peña, Carlo Rizza

10:30 - 10:50

Th-B15-AM-16-1 A Monopole-Fed Reconfigurable Circularly Polarised Metasurface Antenna

Raju Malleboina (1); Debdeep Sarkar (1)
(1) Indian Institute of Science (IISc) (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RLFB6678>

10:50 - 11:10

Th-B15-AM-16-2 A Compact Bi-Directional Metamaterial Absorber Exhibiting Complementary Polarization-Selective Absorption

Kai-Yi Xie (1); Chun-Hao Hsun (2); Yu-Jen Chi (3); Fu-Chiarng Chen (1)
(1) National Yang Ming Chiao Tung University (Taiwan); (2) Industrial Technology Research Institute, Electronics and Optoelectronics Research Laboratories (Taiwan); (3) Tamkang University (Taiwan); (1) National Yang Ming Chiao Tung University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XXID3222>

11:10 - 11:30

Th-B15-AM-16-3 On Modelling Errors in the Experimental Verification of Reconfigurable Reflective Metasurfaces

Jadon Peters (1); Mario Phaneuf (1); Puyan Mojabi (1)
(1) University of Manitoba (Canada)

Link to paper: <https://doi.org/10.46620/26-0031>

Room C

C20: Advances in modern wireless local area networks

Session Chairs: Paweł Sroka, Poznan University of Technology, Poland

Session Conveners: Marek Natkaniec, Adrian Kliks

10:30 - 10:50

Th-C20-AM-16-1 A Transformer for Joint Multi-Receiver Pilotless Wi-Fi Decoding (Invited)

Xavier Tardy (1, 2); Grégoire Lefebvre (2); Apostolos Kountouris (2); Haïfa Farès (1); Amor Nafkha (1)

(1) IETR - UMR CNRS 6164, CentraleSup'elec (France); (2) Orange Research (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WYKA9628>

10:50 - 11:10

Th-C20-AM-16-2 Comparison of DSP Algorithms for Respiration and Heart Rate Monitoring with WiFi Radar

Jakub Dobosz (1); Diego Dupleich (2); Maximilian Engelhardt (2); Pawel Kulakowski (1)
(1) AGH University of Krakow (Poland); (2) Ilmenau University of Technology (Germany);
(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GCUS1338>

11:10 - 11:30

Th-C20-AM-16-3 A Collision Avoidance Media Access Framework for the Hybrid LoRa Network

Xinyu Tan (1); Xinying Kilpi-Chen (1); Ilkka Kivelä (1); Ismo Hakala (1)
(1) University of Jyväskylä (Finland)

Link to paper: <https://doi.org/10.46620/26-0003>

Room D

HGE-3: Atmospheric, ionospheric, magnetospheric, and high energy effects of lightning discharges - Part 3

Session Chairs: Ondrej Santolík, Institute of Atmospheric Physics of the Czech Academy of Sciences, Czech Republic

Session Conveners: Ivana Kolmašová, Martin Fullekrug, Ningyu Liu

10:30 - 10:50

Th-HGE-AM-16-1 Weak Positive Discharges Leading to Lightning Initiation

Victor Pasko (1); Sebastien Celestin (2); Anne Bourdon (3)
(1) Penn State University (United States); (2) University of Orleans (France); (3) École Polytechnique (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EDNP4087>

10:50 - 11:10

Th-HGE-AM-16-2 A Simplified Nighttime Photochemistry set for Lightning Onset and Recovery Events

Joshua Santos (1); Robb Moore (1)
(1) University of Florida (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KFAL7547>

11:10 - 11:30

Th-HGE-AM-16-3 Characterizing Lightning Variability on Jupiter from the Juno Prime Mission's Radio Measurements

Ivana Kolmašová (1, 2); Ondřej Santolík (1, 2); Masafumi Imai (1); William S. Kurth (3); George B. Hospodarsky (3); Michael H. Wong (4, 5); Martin J. Brennan (6); Scott J. Bolton (7); John. E. P. Connerney (8)
(1) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (2) Charles University (Czech Republic); (3) University of Iowa (United States); (4) University of California (United States); (5) SETI Institute (United States); (6) Jet Propulsion Laboratory, California Institute of Technology (United States); (7) Southwest Research Institute (United States); (8) NASA Goddard Space Flight Center (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NIKW4095>

Room F

F04-3: IEEE AP-S TC3: Measurements & Channel Characterisation for mmWave and THz Communications - Part 3

Session Chairs: [Sławomir Ambroziak, Gdańsk University of Technology, Poland](#); [Thomas Kürner, Technische Universität Braunschweig, Germany](#)

Session Conveners: [Sławomir Ambroziak](#), [Thomas Kürner](#), [Ke Guan](#)

10:30 - 10:50

Th-F04-AM-16-1 Wideband and Dual-Band Dynamic Channel Sounder at 6.75 and 15 GHz for Coverage Studies (Invited)

Juha Tuomela (1); Ali Kourani (1); Katsuyuki Haneda (1)
(1) *Aalto University (Finland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UDQU9638>

10:50 - 11:10

Th-F04-AM-16-2 Temporal Variations in Sub-Terahertz 6G Link Budgets: A Year-Long Analysis

Piotr Korbel (1); Sławomir Hausman (1)
(1) *Lodz University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GQQX5779>

11:10 - 11:30

Th-F04-AM-16-3 Millimeter wave wireless link analysis under frequency selective propagation effects

Yosef Pinhasi (1); Hadar Dani (1); Theodor Fedor Yudachev (1); Yosef Golovachev (2); Gad. A. Pinhasi (1)
(1) *Ariel University (Israel)*; (2) *Jerusalem College of Technology (Israel)*; (1) *Ariel University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SEZS3445>

Room G1

G09-3: Machine Learning methods for ionospheric modelling - Part 3

Session Chairs: [Claudio Cesaroni, Istituto Nazionale di Geofisica e Vulcanologia, Italy](#); [Ivan Galkin, University of Massachusetts, United States](#)

Session Conveners: [Claudio Cesaroni](#), [Ivan Galkin](#), [Yenca Migoya-Orue](#)

10:30 - 10:50

Th-G09-AM-16-1 A Deep Learning Approach for Modeling Ionospheric Equivalent Currents During Geomagnetic Storms

Jemina Manninen (1); Heikki Vanhamäki (1); Anita Aikio (1); Andreas Hauptmann (1, 2)
(1) *University of Oulu (Finland)*; (2) *University College London (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QDKR1027>

10:50 - 11:10

Th-G09-AM-16-2 A Hybrid Machine Learning–NeQuick Framework for Regional and Global TEC Forecasting

Eric Nana Asamoah (1); Claudio Cesaroni (1); Giorgia De Franceschi (1); Massimo Cafaro (2); Italo Epicoco (2)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *University of Salento (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/PMLE3130>

11:10 - 11:30

Th-G09-AM-16-3 Causality Graph Informed Machine Learning for Extreme Space Ionospheric Weather

Haiyang Fu (1); Zichong Yan (1); Zitong Wang (1); Yaqiu Jin (1)
(1) Fudan University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VLKC8272>

Room G2

G08-3: Monitoring Global Space Weather with the International Meridian Circle Program - Part 3

Session Chairs: Qing-He Zhang, National Space Science Center, Chinese Academy of Sciences, China;
Michel Blanc, IRAP, Université de Toulouse, CNRS, CNES, France

Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

10:30 - 10:50

Th-G08-AM-16-1 The First Sunset-Free Solar Full-Disk Vector Magnetograph Observing Network under the International Meridian Circle Program (IMCP)

Yingzi Sun (1)
(1) Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XMNS4757>

10:50 - 11:10

Th-G08-AM-16-2 The multi-wavelength response of a major flare in the solar atmosphere

Yuanyong Deng (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ECMR8092>

11:10 - 11:30

Th-G08-AM-16-3 Development Progress of the Magnetic and Helioseismic Imager (MHI) Payload for the Technology Verification Satellite

Biyuan Gao (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VSSY5640>

Room H

H06-1: Turbulence and Instabilities in Space Plasmas - Part 1

Session Chairs: Alexander Pitřa, Charles University, Faculty of Mathematics and Physics, Czech Republic;
Julia E. Stawarz, Northumbria University, United Kingdom

Session Conveners: Alexander Pitřa, Gary Zank, Julia E. Stawarz, Victor Montagud Camp

10:30 - 10:50

Th-H06-AM-16-1 Expansion and shear flow effects on turbulence anisotropy.

Victor Montagud-Camps (1, 2); Petr Hellinger (3); Andrea Verdini (4, 5); Jaume Terradas (1, 2)

(1) Universitat de les Illes Balears (Spain); (2) Institute of Applied Computing & Community Code (IAC3) (Spain); (3) Astronomical Institute of the Czech Republic, Czech Academy of Sciences (Czech Republic); (4) Istituto Nazionale di Astrofisica (INAF) (Italy); (5) Università degli Studi di Firenze (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BKIU4764>

10:50 - 11:10

Th-H06-AM-16-2 Radial Variation of Ion-scale Turbulence and Energy Cascade Rate in the Solar Corona and Inner Heliosphere (Invited)

Eduard Kontar (1)
(1) University of Glasgow (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OOQE8316>

11:10 - 11:30

Th-H06-AM-16-3 Reynolds Number and Viscosity in the Solar Wind

Laxman Adhikari (1); Ashutosh Giri (1); Monika Karki (1); Prashant Baruwal (1); Rubaiya Khondoker Shikha (1); Bigyan Mainali (1); Dessalegn Kenno (1); Ismita Tasnim (1); Gary Paul Zank (1); Bingbing Wang (1); Lucien Treville (1); Sagar Ghimire (1)
(1) *The University of Alabama in Huntsville (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JKFH8136>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/NNqDAxos4X8jAcK>

Room J1

J10-3: Latest news and observatory reports - Part 3

Session Chairs: [Stefan Wijnholds, ASTRON, Netherlands](#); [Yashwant Gupta, National Centre for Radio Astrophysics TIFR, India](#)

Session Conveners: [Stefan J. Wijnholds](#), [Yashwant Gupta](#)

10:30 - 10:50

Th-J10-AM-16-1 Next Generation Very Large Array – Observatory Status Report (Invited)

Matthew Schiller (1); William Shillue (1)
(1) *National Radio Astronomy Observatory (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EZXQ1338>

10:50 - 11:10

Th-J10-AM-16-2 The Australia Telescope National Facility

Douglas Bock (1)
(1) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ABLY7519>

11:10 - 11:30

Th-J10-AM-16-3 Latest Progress Report on Mingantu Observing Station

Yihua Yan (1); Wei Wang (1); Linjie Chen (1); Jin Fan (1)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDZJ1692>

Room J2

J08-3: Real-time processing systems - Part 3

Session Chairs: [Morag Brown, ASTRON, Netherlands Institute for Radio Astronomy, Netherlands](#)

Session Conveners: [Andrew Van Der Byl](#), [Morag Brown](#), [Danny Price](#)

10:30 - 10:50

Th-J08-AM-16-1 Ultrafast real-time imaging with large-N aperture arrays using FPGA accelerators

Jishnu Nambissan Thekkepattu (1); David Humphrey (1); Nithyanandan Thyagarajan (2)
(1) *CSIRO (Australia)*; (2) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CUUS2167>

10:50 - 11:10

Th-J08-AM-16-2 Design and Prototyping of Ethernet Receivers for Next-Generation Radio Astronomy Systems

Gijs Schoonderbeek (1); Ágnes Mika (1); Daniel Van der Schuur (1); Roel Witvers (1)
(1) *ASTRON (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BAYX7201>

Room K

K11: Applications for health monitoring, diagnostics, therapeutics and rehabilitative technologies

Session Chairs: Kazuyuki Saito, Chiba University, Japan; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Emily Porter, Jose Gomez-Tames, Asimina Kiourti, Koichi Ito

10:30 - 10:50

Th-K11-AM-16-1 Heating characteristics of the microwave surgical energy device composed of a waveguide structure with ridges

Tsugumi Nishidate (1); Kazuyuki Saito (1)

(1) Chiba University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IMDR3326>

10:50 - 11:10

Th-K11-AM-16-2 Saliva-Proxy Liquid Identification: Comparing Single- and Dual-Sensor Antenna Topologies with an SDR-Based Sensing Approach

Roberto Alesii (1); Stefano Tennina (2); Krzysztof Stojek (3); Wojciech Kubicki (3)

(1) University of L'Aquila (Italy); (2) WEST L'Aquila S.r.l. (Italy); (3) Wrocław University of Science and Technology (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GCAT7815>

11:10 - 11:30

Th-K11-AM-16-3 In-Vehicle Multi-Passenger Vital-Sign Monitoring for Occupants of Different Body Sizes Using Hybrid Analog–Digital Beamforming

Chung-Tse Michael Wu (1); Chang Hsiu-Che (1); Chun-Kai Chen (2); Yu-Cheng Su (2); Chi-Min Kuo (2); Hsin-Tien Lee (2); Chun-ju Wu (1)

(1) National Taiwan University (Taiwan); (2) UniMax Electronics Inc (Taiwan); (1) National Taiwan University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TTYB7827>

Room P

ETut: Commission E Tutorial

Session Chairs: Carlo Carobbi, URSI Commission E Chair

10:30 - 11:30

Th-ETut-AM-16-1 The role of natural and artificial interference on modern radio instruments (Invited)

Biagio Forte (1)

(1) University of Bath (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDLD9075>

Starting time between 11:30 - 12:29

Room A

A11-2: Realization and Dissemination of Time Scales and Standard Frequencies - Part 2

Session Chairs: Demetrios Matsakis, Masterclock, Inc., United States; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Hiroyuki Ito, Jose Mauricio Lopez, Dirk Piester, Demetrios Matsakis, Ashish Agarwal

11:30 - 11:50

Th-A11-AM-22-1 Prediction of Physical Realizations of Coordinated Universal Time Using a 1D Hybrid Quantum Convolutional Neural Network

Mayra Rivera Ruiz (1); Alejandro Manzano-Ramírez (1); Carlos A. Ortiz (2); Eduardo De Carlos (2); José Mauricio López Romero (1)
(1) CINVESTAV Unidad Queretaro (Mexico); (2) CENAM (Mexico); (1) CINVESTAV Unidad Queretaro (Mexico)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JEIH3296>

11:50 - 12:10

Th-A11-AM-22-2 A new approach to steering UTC(CNM) to UTC

Eduardo De Carlos-López (1); Carlos Andrés Ortiz-Cardona (1); Nélida Díaz-Muñoz (1); Francisco Javier Jiménez-Tapia (1); José Mauricio López-Romero (2); Andrés Medina-Herrera (3)
(1) CENAM (Mexico); (2) CINVESTAV Unidad Queretaro (Mexico); (3) Universidad Del Quindío (Colombia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MJJY6890>

12:10 - 12:30

Th-A11-AM-22-3 Machine Learning for Anomaly Detection on GNSS atomic clocks time series

Marco Lo Iacono (1); Giovanna Signorile (2); Ilaria Sesia (2)
(1) Politecnico di Torino (Italy); (2) INRiM (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NVZA8538>

Room B1

B08-2: Mathematical modelling of EM problems - Part 2

Session Chairs: Paul Smith, Macquarie University, Australia; Piergiorgio L. E. Uslenghi, University of Illinois Chicago, United States

Session Conveners: Paul Smith, George Uslenghi

11:30 - 11:50

Th-B08-AM-22-1 Mie circle for complex-medium scatterers (Invited)

Ari Sihvola (1)
(1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AWQA6725>

11:50 - 12:10

Th-B08-AM-22-2 A UWB Beam-Summation Framework for Propagation and Scattering in Shallow-Water Waveguide (Invited)

Ehud Heyman (1); Pranav Chopde (1); Tomer Paley (1); Amir Boag (1)
(1) Tel Aviv University (Israel)

Link to paper: <https://doi.org/10.46620/26-0082>

12:10 - 12:30

- Th-B08-AM-22-3 Evolution of the oscillation spectra in the complex domain (Invited)**
Garnik Abgaryan (1); Yury Shestopalov (2); Vasilii Mikhalev (1)
(1) Bauman Moscow State Technical University (Russia); (2) RTU MIREA — Russian Technological University (Russia); (1) Bauman Moscow State Technical University (Russia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YPMT6086>

Room B2

B15-6: Metamaterials and metasurfaces to control and tailor wave propagation - Part 6

Session Chairs: Victor Pacheco-Peña, Newcastle University, United Kingdom; Alessandra Contestabile, University of L'Aquila, Italy

Session Conveners: Victor Pacheco-Peña, Carlo Rizza

11:30 - 11:50

- Th-B15-AM-22-1 Five-Mode Wavefront Control using Single-Element Metagratings via Substrate Thickness Engineering**
Zhen Tan (1); Shah Nawaz Burokur (2)
(1) Nantong University (China); (2) Université Paris Nanterre (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KAAA7783>

11:50 - 12:10

- Th-B15-AM-22-2 A Novel Broadband Absorber Based on Modified Octagonal Loop FSS**
Recep Baş (1, 2); Aysun Sayintı (2); Ahmet Kizilay (1)
(1) Yildiz Technical University (Turkey); (2) TUBITAK Marmara Research Center (Turkey)
Link to paper: <https://doi.org/10.46620/URSIGASS26/RVHE3462>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/bR8GEDcdgLMoQRM>

Room C

C22-1: On the impact of transceiver imperfections on communication performance - Part 1

Session Chairs: Krzysztof Cwalina, Gdansk University of Technology, Poland

Session Conveners: Paweł Kryszkiewicz, Adrian Kliks

11:30 - 11:50

- Th-C22-AM-22-1 GRSM-MQAM Massive MIMO under Gaussian Phase Noise Imperfection for mmWave communication**
Oshin Daoud (1); Haïfa Farès (1); Yahia Medjahdi (2); Laurent Clavier (2, 3); Amor Nafkha (1)
(1) IETR - UMR CNRS 6164, CentraleSup'elec (France); (2) IMT Nord Europe, Institut Mines-Télécom, Centre for Digital Systems (France); (3) IEMN – UMR CNRS 8520 (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JRAR9687>

11:50 - 12:10

- Th-C22-AM-22-2 Joint Impact of Phase Quantization and Phase Error on Hybrid Beamforming for Massive MIMO**
Siti Aisyah (1); Angela Doufexi (1); Simon Armour (1); Waqas Bin Abbas (1)
(1) School of Electrical, Electronic and Mechanical Engineering, University of Bristol (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IIDX3024>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/HSwWBxByxBHNMm5t8>

12:10 - 12:30

- Th-C22-AM-22-3 Multi-user uplink OFDMA resource allocation under nonlinear PA distortion**
Paweł Sroka (1); Paweł Kryszkiewicz (1)
(1) *Poznan University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LCRQ6020>

Room D

H05-1: Computer Simulations and Machine Learning methods in Space Plasmas - Part 1

Session Chairs: Yohei Miyake, Kobe University, Japan
Session Conveners: Esa Kallio, Yohei Miyake, Shahab Fatemi

11:30 - 11:50

- Th-H05-AM-22-1 Improving ionospheric F2-layer peak modelling with neural networks by hyperparameter optimisation and feature engineering**
Leo Laitinen (1, 2); Artem Smirnov (3, 4); Esa Kallio (2); Fabricio Prol (1)
(1) *Finnish Geospatial Research Institute (Finland)*; (2) *Aalto University (Finland)*; (3) *Ludwig Maximilian University of Munich (Germany)*; (4) *GFZ German Research Centre for Geosciences (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EHWH1287>

11:50 - 12:10

- Th-H05-AM-22-2 AU-Ray ray-tracing simulations replicating oblique ionosonde measurements**
Elias Hirvonen (1, 2); Johannes Norberg (1); Achille Zirizzotti (3); Loredana Perrone (3); Kirsti Kauristie (1); Esa Kallio (2)
(1) *Finnish Meteorological Institute (Finland)*; (2) *Aalto University (Finland)*; (3) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LYWZ6480>

12:10 - 12:30

- Th-H05-AM-22-3 Simulation Study on the Enhancement of ELF/VLF Signals by Supersonic Water Molecules in the Ionosphere**
Zhijian Lu (1, 2); Jingjing Li (2); Jian Wu (2); Jingfeng Yao (1, 3); Xingbao Lyu (1, 3); Chengxun Yuan (1, 3); Zhongxiang Zhou (1, 3)
(1) *Harbin Institute of Technology (China)*; (2) *China Research Institute of Radio Waves Propagation (China)*; (3) *Heilongjiang Provincial Key Laboratory of Plasma Physics and Application Technology (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LXAZ2433>

Room E

EFGH-2: Natural Electromagnetic Noise and Radio Sensing Applications in Terrestrial and Planetary Environment - Part 2

Session Chairs: Carlo Carobbi, Università degli Studi di Firenze, Italy; Piotr Slobodzian, Wroclaw University of Science and Technology, Poland
Session Conveners: Yasuhide Hobara, Sujay Pal, Tomoo Ushio

11:50 - 12:10

- Th-EFGH-AM-22-2 Recovery of a Carnegie-like Diurnal Signature of the Global Atmospheric Electric Circuit from Urban Potential Gradient Measurements**
Ruben Romero (1); Jose Tacza (2); Anna Odzimek (2); Sergio Szpigel (1); Jean-Pierre Raulin (1)
(1) *Mackenzie Presbyterian University (Brazil)*; (2) *Institute of Geophysics Polish Academy of Sciences (Poland)*; (1) *Mackenzie Presbyterian University (Brazil)*
Link to paper: <https://doi.org/10.46620/26-0091>

12:10 - 12:30

Th-EFGH-AM-22-3 Killa Simi: An L-Band Lunar Surface Experiment to Characterize the Natural Electromagnetic Noise Floor (1570–1750 MHz)

Juan Antonio Jave Sagastegui (1); Neils Edison Vilchez Lagos (1); Stephany Victoria Cañedo Ruiz (1); Roxana Maria Moran Morales (2); Marco Antonio Becerra Perez (2); Marco Antonio Quispe Choquehuanca (2)
(1) Pontificia Universidad Católica del Perú (Peru); (2) INICTEL-UNI (Peru)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GJWV4593>

Room F

F04-4: IEEE AP-S TC3: Measurements & Channel Characterisation for mmWave and THz Communications - Part 4

Session Chairs: Slawomir Ambroziak, Gdańsk University of Technology, Poland; Thomas Kürner, Technische Universität Braunschweig, Germany
Session Conveners: Slawomir Ambroziak, Thomas Kürner, Ke Guan

11:30 - 11:50

Th-F04-AM-22-1 The impact of Rain on Short 288 GHz Link: Preliminary Experimental Results and Prediction Models (Invited)

Arata Ogaki (1, 2); Francesco Capelletti (3); Kouichi Akahane (1); Tetsuya Kawanishi (2, 1); Thomas Kürner (4)
(1) National Institute of Information and Communications Technology (Japan); (2) Waseda University (Japan); (3) Politecnico di Milano (Italy); (4) Technische Universität Braunschweig (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/EFNK5598>

11:50 - 12:10

Th-F04-AM-22-2 THz Radar Signatures of Honey Bees: Validation of Ray-Tracing Models (Invited)

Dien Lessy (1); Fawad Sheikh (1); Rong Zhao (2); Tian Lengfeng (2); Ma Jianjun (2); Basem Aqlan (1); Tobias Kubiczek (1); Jan Balzer (1); Thomas Kaiser (1)
(1) Universität Duisburg-Essen (Germany); (2) Beijing Institute of Technology (China); (1) Universität Duisburg-Essen (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WLCH1337>

Room G1

G14-1: Natural and Anthropogenic Sources of Transient Plasmas and Radio Emissions in the Near-Space Environment - Part 1

Session Chairs: Jorge Chau, Leibniz Institute of Atmospheric Physics (IAP), Germany; Robin Wing, Leibniz Institute of Atmospheric Physics (IAP), Germany
Session Conveners: Jorge Chau, Julio Urbina, Yanlin Li

11:30 - 11:50

Th-G14-AM-22-1 Anthropogenic metals in the near-space environment: lidar observations from Falcon 9 re-entry to multi-species monitoring (Invited)

Robin Wing (1); Michael Gerding (1); John Plane (2); Yanmichel Morfa (1); Miguel Urco (3); Yosuke Yamazaki (1); Nadine Müller (1); Frederik Ernst (1); Thorben Lücke-Mense (1); Jan Froh (1); Leonard Schulz (4); Josef Höffner (1); Toralf Renkwitz (1); Claudia Stephan (1); Gerd Baumgarten (1); Claudia Stolle (1)
(1) Leibniz Institute of Atmospheric Physics (IAP) (Germany); (2) University of Leeds (United Kingdom); (1) Leibniz Institute of Atmospheric Physics (IAP) (Germany); (3) Pontificia Universidad Católica del Perú (Peru); (1) Leibniz Institute of Atmospheric Physics (IAP) (Germany); (4) Technische Universität Braunschweig (Germany); (1) Leibniz Institute of Atmospheric Physics (IAP) (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WEB9610>

11:50 - 12:10

Th-G14-AM-22-2 Analysis of optical and radar measurements during the February 19th Falcon 9 spacecraft re-entry

Dabrowka Knach (1); Juha Vierinen (1, 2); Gerd Baumgarten (2); Devin Huyghebaert (2); Matthias Clahsen (2); Björn Gustavsson (1); Jorge L. Chau (2)
(1) UiT The Arctic University of Norway (Norway); (2) Leibniz Institute of Atmospheric Physics (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RXNP2260>

12:10 - 12:30

Th-G14-AM-22-3 VHF Wind Profiling Radar Observations of Meteors and Satellites in LEO

Iain M. Reid (1, 2); Bronwyn K. Dolman (1, 2)
(1) ATRAD Pty Ltd. (Australia); (2) The University of Adelaide (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GGGCC403>

Room G2

G08-4: Monitoring Global Space Weather with the International Meridian Circle Program - Part 4

Session Chairs: Michel Blanc, IRAP, Université de Toulouse, CNRS, CNES, France; Qing-He Zhang, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

08:50 - 09:10

Th-G08-AM-22-2 Studying the spatial features of ionospheric irregularities and lower-atmospheric activities based on all-sky radar (Invited)

Wenjie Sun (1)
(1) Institute of Geology and Geophysics, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BDFB7570>

09:10 - 09:30

Th-G08-AM-22-3 Determination of the O⁺-O Collision Frequency Factor from the Sanya Incoherent Scatter Radar Measurements

Ning Zhang (1); Xinan Yue (1)
(1) Institute of Geology and Geophysics, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DHUL6908>

Room H

H06-2: Turbulence and Instabilities in Space Plasmas - Part 2

Session Chairs: Victor Montagud-Camps, Universitat de les Illes Balears, Spain; Alexander Pitřa, Charles University, Faculty of Mathematics and Physics, Czech Republic

Session Conveners: Alexander Pitřa, Gary Zank, Julia E. Stawarz, Victor Montagud Camp

11:30 - 11:50

Th-H06-AM-22-1 The Evolution of Turbulence in the Inner Heliosphere: Insights from the February 2022 Radial Alignment between Parker Solar Probe and Solar Orbiter

Julia E. Stawarz (1); Lorenzo Matteini (2); Luca Sorriso-Valvo (3); Jaye Verniero (4); Raffaella D'Amicis (5); Lina Hadid (6); Utsav Panchal (1); Denise Perrone (7); Yeimy Rivera (8); Sergio Toledo Redondo (9); Robert Wicks (1)
(1) Northumbria University (United Kingdom); (2) Imperial College London (United Kingdom); (3) Istituto per la Scienza e Tecnologia dei Plasmi (Italy); (4) NASA Goddard Space Flight Center (United States); (5) Institute for Space Astrophysics and Planetology (Italy); (6) École Polytechnique (France); (1) Northumbria University (United Kingdom); (7) Italian Space Agency (Italy); (8) Center for Astrophysics (United States); (9) University of Murcia (Spain); (1) Northumbria University (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ETCE7003>

11:50 - 12:10

- Th-H06-AM-22-2 Relation between magnetic field and velocity variations and its evolution through the heliosphere**
Zdenek Nemecek (1); Jana Safrankova (1); Frantisek Nemec (2); Tereza Durovcova (2)
(1) Charles University, Faculty of Mathematics and Physics (Czech Republic); (2) Charles University (Czech Republic)
Link to paper: <https://doi.org/10.46620/URSIGASS26/RDPG9894>

12:10 - 12:30

- Th-H06-AM-22-3 Correlation length of solar wind turbulence and the onset of inertial range: observations and synthetic data**
Ilyas Abushzada (1); Alexander Pitňa (1); Jana Šafránková (1); Zdeněk Němeček (1)
(1) Charles University, Faculty of Mathematics and Physics (Czech Republic)
Link to paper: <https://doi.org/10.46620/26-0064>

Room J1

J10-4: Latest news and observatory reports - Part 4

- Session Chairs:* Stefan Wijnholds, *ASTRON, Netherlands*; Yashwant Gupta, *National Centre for Radio Astrophysics TIFR, India*
Session Conveners: Stefan J. Wijnholds, *Yashwant Gupta*

11:30 - 11:50

- Th-J10-AM-22-1 Status of and Recent Results from the Effelsberg 100-m Radio Telescope**
Alex Kraus (1); Uwe Bach (1); Michael Kramer (1)
(1) Max-Planck-Institut für Radioastronomie (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KXQZ9255>

11:50 - 12:10

- Th-J10-AM-22-2 Updates on the European VLBI Network (EVN) and the Global VLBI Alliance**
Agnieszka Slowikowska (1); Zsolt Paragi (1); Bob Campbell (1); Marjolein Verkouter (1); Giuseppe Cimo (1); Hideyuki Kobayashi (2); Chris Phillips (3)
(1) Joint Institute for VLBI ERIC (Netherlands); (2) National Astronomical Research Institute of Thailand (Thailand); (3) CSIRO (Australia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KTCK4345>

12:10 - 12:30

- Th-J10-AM-22-3 Recent Scientific and Technical Highlights of the Yebes Observatory**
Cristina Garcia-Miro (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (Spain)
Link to paper: <https://doi.org/10.46620/URSIGASS26/DLPF5860>

Room J2

JC-1: SETI - Part 1

- Session Chairs:* Karen Perez, *SETI Institute, United States*; Kumar Vijay Mishra, *University of Maryland, United States*
Session Conveners: Andrew Siemion, *Karen Perez, Mike Garrett, Kumar Vijay Mishra, Taner Şengör*

11:30 - 11:50

- Th-JC-AM-22-1 The First Decade of Breakthrough Listen: A Technical Retrospective and Future Ambitions (Invited)**
David MacMahon (1)
(1) University of California (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/RSXE3165>

11:50 - 12:10

- Th-JC-AM-22-2 Lunar Farside Technosignature and Transients Telescope (LFT3)**
David DeBoer (1)
(1) *Physics Department, University of Oxford (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LWTT3979>

12:10 - 12:30

- Th-JC-AM-22-3 The Sardinia Radio Telescope in the Breakthrough Listen Program: Observations, Data Analysis, and Training**
Alessandro Cabras (1); Maura Pilia (1); Andrea Melis (1)
(1) *Istituto Nazionale di Astrofisica (INAF) (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OPEB8576>

Room K

K12: Emerging Radar Technologies for Sensing, Imaging, and Human Centered Applications

Session Chairs: Francesca Apollonio, *Sapienza University of Rome, Italy*; Rafael Fiore, *University of Western Australia, Australia*

Session Conveners: Giulia Sacco, Lena Kranold

11:30 - 11:50

- Th-K12-AM-22-1 Wearable Battery-Less Nonlinear Tags Enabled Harmonic Radar for Clutter-Resilient Contactless Respiration Monitoring**
Changzhi Li (1); Leya Zeng (1)
(1) *Texas Tech University (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MSFH8600>

11:50 - 12:10

- Th-K12-AM-22-2 Self-Shielding, High-Efficiency On-Body AFSIW Antennas for Off-Body Communication and Sensing (Invited)**
Arno Moerman (1, 2); Olivier Caytan (1, 2); Sam Lemey (1, 2); Hendrik Rogier (1, 2)
(1) *Ghent University (Belgium)*; (2) *Interuniversity Microelectronics Centre (imec) (Belgium)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KBSG2840>

12:10 - 12:30

- Th-K12-AM-22-3 A DSIL Low-IF Radar System with Structural Reuse for Wrist-Based Vital Sign Monitoring**
Tzyy-Sheng Horng (1); Chia-Hung Ma (1); Chinmaya Tripathy (1); Hao-Cheng Wang (1)
(1) *National Sun Yat-Sen University (Taiwan)*; (2) *National Taiwan Normal University (Taiwan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YCJH7244>

Room P

ITU: ITU Workshop

Session Chairs: Sana Salous, University of Durham, United Kingdom

Starting time between 13:30 - 14:39

Room A

A11-3: Realization and Dissemination of Time Scales and Standard Frequencies - Part 3

Session Chairs: Demetrios Matsakis, Masterclock, Inc., United States; José Mauricio López Romero, CINVESTAV Unidad Queretaro, Mexico

Session Conveners: Hiroyuki Ito, Jose Mauricio Lopez, Dirk Piester, Demetrios Matsakis, Ashish Agarwal

13:40 - 14:00

Th-A11-PM-05-1 Polish Time Metrology Over the Last Decade (Invited)

Włodzimierz Lewandowski (1)

(1) The National Institute of Telecommunications (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KQZR1828>

Room B1

B02-8: Antenna theory, design and measurements - Part 8

Session Chairs: Debatosh Guha, University of Calcutta, India; Andrea Michel, University of Pisa, Italy; Sima Noghanian, Ruckus Networks, United States

Session Conveners: Debatosh Guha, Andrea Michel, Sima Noghanian

13:40 - 14:00

Th-B02-PM-05-1 Novel Cross-shaped Circularly Polarised Miniaturized Multiple-Input Multiple-Output Dielectric Resonator Antenna for mm wave Applications

Sumer Singh Singhwal (1); Ladislau Matekovits (1); Ildiko Peter (2)

(1) Politecnico di Torino (Italy); (2) University of Medicine, Pharmacy, Science and Technology (Romania)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XEZO3977>

14:00 - 14:20

Th-B02-PM-05-2 Wideband Leaky-Wave Antenna with Fiber-Laser PRS and 3D-Printed Cavity

Rana Muhammad Hasan Bilal (1); Etienne Perret (2); Simone Genovesi (3); Giuliano Manara (3); Filippo Costa (3)

(1) University of Pisa (Italy); (2) CEA-Leti, Université Grenoble Alpes (France); (3) Department of Information Engineering, University of Pisa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RHRZ4976>

Room B2

B03-3: Scattering and diffraction - Part 3

Session Chairs: Giuliano Manara, University of Pisa, Italy; Ludger Klinkenbusch, Kiel University, Germany

Session Conveners: Giuliano Manara, Ludger Klinkenbusch

13:40 - 14:00

Th-B03-PM-05-1 Effective rank of the Fisher Information Matrix in Inverse Scattering (Invited)

Mats Gustafsson (1)

(1) Lund University (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BXPR8282>

14:00 - 14:20

Th-B03-PM-05-2 Arbitrary Frequency Conversion and Wavefront Manipulation via Engineered Electric and Magnetic Current Boundaries (Invited)

Dongha Yang (1); Connor Haney (1); Vincent Tabib (1); Pingjuan Werner (1)
(1) *The Pennsylvania State University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QTQI8280>

14:20 - 14:40

Th-B03-PM-05-3 Method-of-Moments Solution of Multipole-enhanced Generalized Source Integral Equations

Ludger Klinkenbusch (1); Richard Kalhöfer (1); Yossi Dahan (2); Yaniv Brick (2); Amir Boag (3)

(1) *Kiel University (Germany)*; (2) *Ben Gurion University of the Negev (Israel)*; (3) *Tel Aviv University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FBFT5317>

Room C

C22-2: On the impact of transceiver imperfections on communication performance - Part 2

Session Chairs: *Krzysztof Cwalina, Gdansk University of Technology, Poland*

Session Conveners: *Paweł Kryszkiewicz, Adrian Kliks*

13:40 - 14:00

Th-C22-PM-05-1 Nonlinear Amplifier-Originating Massive MIMO Distortions: Evaluation in Ray-Tracer-based Digital Twin

Marcin Pakuła (1); Marcin Hoffmann (1); Paweł Kryszkiewicz (1)
(1) *Poznan University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/TVEQ6911>

14:00 - 14:20

Th-C22-PM-05-2 Radio Environment Map for Energy-Efficient User-Centric Cell-Free M-MIMO Network

Marcin Hoffmann (1); Paweł Kryszkiewicz (1)
(1) *Poznan University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XOSD7040>

Room D

H05-2: Computer Simulations and Machine Learning methods in Space Plasmas - Part 2

Session Chairs: *Esa Kallio, Aalto University, Finland*

Session Conveners: *Esa Kallio, Yohei Miyake, Shahab Fatemi*

13:40 - 14:00

Th-H05-PM-05-1 Ion-Driven Positive Charging in Sub-Debye-Scale Confined Gaps Between Densely Packed Spheres

Jin Nakazono (1); Wojciech J. Miloch (2)

(1) *Kobe University (Japan)*; (2) *University of Oslo (Norway)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GTXR8329>

14:00 - 14:20

Th-H05-PM-05-2 Hyper Boris integrators for kinetic plasma simulations (Invited)

Seiji Zenitani (1); Tsunehiko Kato (2)

(1) *Space Research Institute (Austria)*; (2) *Rikkyo University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/AHVV4135>

14:20 - 14:40

Th-H05-PM-05-3 Role of Plasma Distribution Gradients in Electron Acceleration by Kinetic Alfvén Waves

Koseki Saito (1); Yuto Katoh (1); Yohei Kawazura (2)
(1) Tohoku University (Japan); (2) Utsunomiya University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VEVC3274>

Room E

EC: EM Security of Cyber-Physical Systems and Wireless Technologies

Session Chairs: Chaouki Kasmí, Technology Innovation Institute, United Arab Emirates; Daisuke Fujimoto, Nara Institute of Science and Technology, Japan

Session Conveners: Virginie Deniau, Yuichi Hayashi, Chaouki Kasmí, Felix Vega, Giulio Antonini

13:40 - 14:00

Th-EC-PM-05-1 Automatic Detection of TEMPEST Emissions from Video Display Units Using Deep Learning

Nadège Botovoloso (1); Luc Bontemps (1)
(1) Royal Military Academy (Belgium)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WGKC7045>

14:00 - 14:20

Th-EC-PM-05-1 A Study on Injection Efficiency Estimation Method toward Countermeasures Against IEMI Attacks on Security Circuits

Koki Abe (1); Daisuke Fujimoto (1); Yuichi Hayashi (1)
(1) Nara Institute of Science and Technology (Japan)
Link to paper: <https://doi.org/10.46620/26-0059>

14:20 - 14:40

Th-EC-PM-05-3 Radio-Tempest: cross-device interaction between compromising emanations and radio front-ends

Jose Lopes Esteves (1); Emmanuel Cottais (1); Nicolas Magnin (1)
(1) French Cybersecurity Agency (ANSSI) (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CHJX2055>

Room F

F08: AI for Precipitation and Atmospheric Remote Sensing

Session Chairs: Saurabh Das, Indian Institute of Technology Indore, India; V. Chandrasekar, Colorado State University, United States

Session Conveners: V. Chandrasekar, Saurabh Das

13:40 - 14:00

Th-F08-PM-05-1 Hybrid Swin Transformer-ConvLSTM Framework for Rainfall Nowcasting

Saurabh Das (1); Vidhan Thakur (2); Vaibhav Tyagi (1)
(1) Indian Institute of Technology Indore (India); (2) Indian institute of Technology, Patna (India); (1) Indian Institute of Technology Indore (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AHRA5277>

14:00 - 14:20

Th-F08-PM-05-2 Radar Nowcasting of Hail-Producing Convective Storms over Colorado and Wyoming Using GPTCast

Chandrasekar Radhakrishnan (1); V. Chandrasekar (1); Vishnu Charan Venkatesh (1); Sounak Biswas (1); Renzo Bechini (1)
(1) Colorado State University (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LSJQ6020>

14:20 - 14:40

Th-F08-PM-05-3 Deep Learning-based Identification of Superrefraction Events in FORMOSAT-7/COSMIC-2 Radio Occultation Data

Cissi Lin (1); Hsiang-Wen Cheng (1); Chung-Yu Shih (1); Kai-Hsun Chen (1); Shu-Chi Yang (1); Chia-Hui Chang (1); Feng-Nan Hwang (1)
(1) *National Central University (Taiwan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QVCU9641>

Room G1

G14-2: Natural and Anthropogenic Sources of Transient Plasmas and Radio Emissions in the Near-Space Environment - Part 2

Session Chairs: Jorge Chau, *Leibniz Institute of Atmospheric Physics (IAP), Germany*; Robin Wing, *Leibniz Institute of Atmospheric Physics (IAP), Germany*

Session Conveners: Jorge Chau, Julio Urbina, Yanlin Li

13:40 - 14:00

Th-G14-PM-05-1 Investigating Meteor Radio Afterglows with the SIMONE Meteor Radar (Invited)

Kenneth Obenberger (1); Jorge Chau (2); Juha Vierinen (3); Denis Vida (4); Logan Cordonnier (5); Zsolt Balint (6); Matthias Clahsen (2); Eugene Dao (1); Jayce Dowell (5); Jeffrey Holmes (1); Ralph Kelly (6); Daniel Kastinen (7); Nico Pfeffer (2); Kris Robinson (6); Gregory Taylor (5); Miguel Urco (8)
(1) *Air Force Research Lab (United States)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (3) *Arctic University of Norway (Norway)*; (4) *University of Western Ontario (Canada)*; (5) *University of New Mexico (United States)*; (6) *Space Dynamics Laboratory (United States)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (1) *Air Force Research Lab (United States)*; (5) *University of New Mexico (United States)*; (1) *Air Force Research Lab (United States)*; (6) *Space Dynamics Laboratory (United States)*; (7) *Swedish Institute of Space Physics (Sweden)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (6) *Space Dynamics Laboratory (United States)*; (5) *University of New Mexico (United States)*; (8) *Pontificia Universidad Católica del Perú (Peru)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/RCUV2245>

14:00 - 14:20

Th-G14-PM-05-2 One year of continuous meteor head echo observations in Antarctica

Juha Vierinen (1); Jorge Chau (2); Koji Nishimura (3); K Mushiaki (3); Taishi Hashimoto (4); Nico Pfeffer (2); Daniel Kastinen (5); Devin Huyghebaert (2); Johan Kero (5); Masaki Tsutsumi (4); Kaoru Sato (6)
(1) *UiT The Arctic University of Norway (Norway)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (3) *Kyoto University (Japan)*; (4) *National Institute of Polar Research (Japan)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (5) *Swedish Institute of Space Physics (Sweden)*; (2) *Leibniz Institute of Atmospheric Physics (Germany)*; (5) *Swedish Institute of Space Physics (Sweden)*; (4) *National Institute of Polar Research (Japan)*; (6) *The University of Tokyo (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JZNN6676>

14:20 - 14:40

Th-G14-PM-05-3 Inferring Meteor Fragmentation from Specular Radar Echo Morphology

Nicholas Holl (1); Julio Urbina (1); Frederick Galindo (1); Yanlin Li (1)
(1) *Penn State University (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YPIB1093>

Room G2

GF-1: Electromagnetic Seismic precursors and radio remote sensing of Earth - Part 1

Session Chairs: Giovanni Nico, National Research Council (CNR), Italy; Hans Ulrich Eichelberger, Austrian Academy of Sciences, Austria

Session Conveners: Pier Francesco Biagi, Hans Ulrich Eichelberger, Patrick Galopeau, Giovanni Nico

13:40 - 14:00

Th-GF-PM-05-1 Total electron content anomalies over tectonic plate boundaries indicating lithosphere-ionosphere coupling

Wojciech Jarmolowski (1)
(1) University of Warmia and Mazury in Olsztyn (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JAFT1181>

14:00 - 14:20

Th-GF-PM-05-2 Ionospheric Disturbances Preceding Large Earthquakes in Japan

Katsumi Hattori (1); Chinatsu Sasanuma (1); Rui Song (1); Chie Yoshino (1); Jann-Yenq Liu (2)
(1) Chiba University (Japan); (2) National Central University (Taiwan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ABNS4807>

14:20 - 14:40

Th-GF-PM-05-3 Ionosphere state influence on variation of D-region parameters at the same change in VLF signal amplitude and phase

Aleksandra Nina (1); Hans U. Eichelberger (2); Giovanni Nico (3); Pier F. Biagi (4); Mohammed Y. Boudjada (2)
(1) Institute of Physics (Serbia); (2) Space Research Institute (Austria); (3) IAC-CNR (Italy); (4) Department of Physics, University of Bari (Italy); (2) Space Research Institute (Austria)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FJHY1023>

Room H

H06-3: Turbulence and Instabilities in Space Plasmas - Part 3

Session Chairs: Julia E. Stawarz, Northumbria University, United Kingdom; Victor Montagud-Camps, Universitat de les Illes Balears, Spain

Session Conveners: Alexander Pitňa, Gary Zank, Julia E. Stawarz, Victor Montagud Camp

13:40 - 14:00

Th-H06-PM-05-1 Evolution of compressible and incompressible fluctuations across MHD shocks

Alexander Pitňa (1); Gary Zank (2); Lingling Zhao (2); Laxman Adhikari (2); Masaru Nakanotani (2); Ashok Silwal (2); Prashrit Baruwal (2); Sujun Prasad Gautam (2); Monika Karki (2); Ilyas Abushzada (1); Zdeněk Němeček (1); Jana Šafránková (1)
(1) Charles University, Faculty of Mathematics and Physics (Czech Republic); (2) The University of Alabama in Huntsville (United States); (1) Charles University, Faculty of Mathematics and Physics (Czech Republic)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ZSMB3036>

14:00 - 14:20

Th-H06-PM-05-2 Microstructures in Oblique Pickup Ion Mediated Shock (Invited)

Shuichi Matsukiyo (1); Yosuke Matsumoto (2)
(1) Kyushu University (Japan); (2) Chiba University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FVAZ9905>

14:20 - 14:40

Th-H06-PM-05-3 Behavior of Langmuir waves in Earth's electron foreshock (Invited)

Daniel B. Graham (1); Yuri Khotyaintsev (1); Mats Andre (1); Andris Vaivads (2); Iver Cairns (3)

(1) *Swedish Institute of Space Physics (Sweden)*; (2) *KTH Royal Institute of Technology (Sweden)*; (3) *The University of Sydney (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HQGB6028>

Room J1

J10-5: Latest news and observatory reports - Part 5

Session Chairs: Stefan Wijnholds, *ASTRON, Netherlands*; Yashwant Gupta, *National Centre for Radio Astrophysics TIFR, India*

Session Conveners: Stefan J. Wijnholds, Yashwant Gupta

13:40 - 14:00

Th-J10-PM-05-1 ALMA - an observatory report (Invited)

Sean Dougherty (1)

(1) *ALMA (Chile)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VFSA8563>

14:00 - 14:20

Th-J10-PM-05-2 Recent Update on the Event Horizon Telescope (EHT) (Invited)

Satoki Matsushita (1)

(1) *Institute of Astronomy and Astrophysics, Academia Sinica (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/NMKS4825>

14:20 - 14:40

Th-J10-PM-05-3 Measurements of UEMR and D2D at L,S,X & K Band

Liroy Lourenço (1); Balthasar Indermüehle (1)

(1) *CSIRO (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FAOI1861>

Room J2

JC-2: SETI - Part 2

Session Chairs: Karen Perez, *SETI Institute, United States*; Kumar Vijay Mishra, *University of Maryland, United States*

Session Conveners: Andrew Siemion, Karen Perez, Mike Garrett, Kumar Vijay Mishra, Taner Şengör

13:40 - 14:00

Th-JC-PM-05-1 Mining the MeerKAT Archive for Transients and Technosignatures

Joe Bright (1); Jonathan Kenyon (2); Oleg Smirnov (2); Landman Bester (2); Ian Heywood (3); Andrew Siemion (4)

(1) *Physics Department, University of Oxford (United Kingdom)*; (2) *Rhodes University (South Africa)*; (3) *Square Kilometre Array Observatory (United Kingdom)*; (4) *SETI Institute (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/IHLB5992>

14:00 - 14:20

Th-JC-PM-05-2 Adapting Generalized Spectral Kurtosis Methods for RFI Excision to Narrowband SETI

Kenneth Houston (1)

(1) *University of California, Berkeley (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QGIJ2608>

14:20 - 14:40

- Th-JC-PM-05-3 The Allen Telescope Survey Agnostic Technosignature (ASTAT) Pipeline**
Isabel Gerrard (1, 2); Sofia Sheikh (1); Joe Bright (2)
(1) SETI Institute (United States); (2) Physics Department, University of Oxford (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XVSL6631>

Room K

K13: Emerging Technologies for Controlled Microwave Heating in Biomedical Applications

- Session Chairs:* Maarten Paulides, Eindhoven University of Technology, Netherlands; Lourdes Farrugia, University of Malta, Malta
Session Conveners: Lourdes Farrugia, Sergio Curto

13:40 - 14:00

- Th-K13-PM-05-1 Benchmarking pipeline for hyperthermia treatment modeling - impact of temperature-dependent cooling in RF hyperthermia**
Laura Barendsz (1); Kemal Sumser (1); Anton Rink (2); Carolina Carrapiço Seabra (2); Sergio Curto (2); Maarten Paulides (1, 2)
(1) Eindhoven University of Technology (Netherlands); (2) Erasmus University Medical Center Cancer Institute (Netherlands)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VYWL6113>

14:00 - 14:20

- Th-K13-PM-05-2 Microwave catheter with helical structure generating a localised heating region for renal denervation**
Tohgo Hosoda (1); Yuki Ito (1); Kazuyuki Saito (1)
(1) Chiba University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WMFY2343>

14:20 - 14:40

- Th-K13-PM-05-3 Quality assurance techniques in radiofrequency hyperthermia applicators**
Deovrat Phal (1); Kemal Sumser (1); Michael Zeinoun (2); Patrick Granton (3); Sergio Curto (3); Margarethus Paulides (1, 3)
(1) Eindhoven University of Technology (Netherlands); (2) Sensius Thermotherapy BV (Netherlands); (3) Erasmus University Medical Center Cancer Institute (Netherlands)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WYFG2035>

Room P

ECRTut-1: ECR Tutorial - Part 1

- Session Chairs:* Fritz Bruce, Naval Research Laboratory, United States

13:40 - 14:40

- Th-ECRTut-PM-05-1 Being responsible in the age of Big Data: Remote sensing the ionosphere and magnetosphere (Invited)**
David Themens (1)
(1) University of Birmingham (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ATWF7843>

Starting time between 13:30 - 14:39

Room A

A06: Metrology in Action: Agriculture, Health, Transport, and Smart Cities

Session Chairs: Ilona Piekarz, AGH University of Krakow, Poland; Amitava Sen Gupta, North Cap University, India

Session Conveners: Nuno Carvalho, Ilona Piekarz, Giacomo Paolini, Rowayda Sadek

14:00 - 14:20

Th-A06-PM-07-1 Detection of Methanol Contamination in Alcohol Beverages Using Microwave Sensing

Jakub Sorocki (1); Ilona Piekarz (1)
(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GLOY4278>

14:20 - 14:40

Th-A06-PM-07-2 Honey Adulteration Detection Using Dedicated Microwave Sensing System

Ilona Piekarz (1); Jakub Sorocki (1)
(1) AGH University of Krakow (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RQPG2524>

Starting time between 13:30 - 14:39

Room C

C06: Integrated sensing and communications

Session Chairs: Sundar Ram Shobha, IIT Delhi, India; Qingqing Wu, Shanghai Jiao Tong University, China

Session Conveners: Shobha Sundar Ram, Qingqing Wu

14:20 - 14:40

Th-C06-PM-09-1 Low-Altitude Integrated Sensing and Communication with Cooperatively Rotatable Active and Passive Arrays (Invited)

Qingqing Wu (1); Ziyuan Zheng (1); Wen Chen (1)
(1) Shanghai Jiao Tong University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OMJH7374>

Starting time between 14:40 - 15:39

Room A

A15: Precision Metrology – Training, Management and Prospects

Session Chairs: Demetrios Matsakis, Masterclock, Inc., United States; Amitava Sen Gupta, North Cap University, India

Session Conveners: Demetrios Matsakis, Steven Weiss, Parameswar Banerjee

14:40 - 15:00

Th-A15-PM-11-1 Strengthening Global Time and Frequency Metrology through CCTF Capacity Building and Knowledge Transfer program

Poonam Arora (1); Patrizia Tavella (2)
(1) CSIR-National Physical Laboratory (India); (2) Bureau international des poids et mesures (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AIHU1951>

Room B2

B03-4: Scattering and diffraction - Part 4

Session Chairs: Giuliano Manara, University of Pisa, Italy; Ludger Klinkenbusch, Kiel University, Germany

Session Conveners: Giuliano Manara, Ludger Klinkenbusch

14:40 - 15:00

Th-B03-PM-11-1 Scaled Model for Studying the Propagation and Diffraction of Radio Waves in Tunnels

Gad A. Pinhasi (1); Ravid Borichovitce (1); Ori Glikstein (1); Yosef Pinhasi (1)
(1) Ariel University (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OGDO7084>

15:00 - 15:20

Th-B03-PM-11-2 Wide-Band Dispersive Effects for Surface Waves Propagating on a Metal Surface Covered by a Material Sheet (Invited)

Daniel Sjöberg (1)
(1) Lund University (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UVNJ3259>

Room F

F05: Ground-based and UAV-based radar measurements

Session Chairs: Motoyuki Sato, Tohoku University, Japan; Massimiliano Pieraccini, University of Florence, Italy

Session Conveners: Motoyuki Sato, Massimiliano Pieraccini

14:40 - 15:00

Th-F05-PM-11-1 Calibrating HF and VHF radars using a stratospheric balloon mission

Toralf Renkwitz (1); Matthias Claßen (1); Ralph Latteck (1)
(1) Leibniz Institute of Atmospheric Physics (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DVDM7871>

15:00 - 15:20

Th-F05-PM-11-2 Ultra-Wideband Ku- and Ka-band Radars for Measurements of Snow Over Sea Ice with Small Unmanned Aircraft Systems

Simon Colburn (1); Colin Duckworth (1); Nathan Fisk (1); Julianne Stroeve (2); Sara Neshani (1); Drew Taylor (1); Prasad Gogineni (1)
(1) The University of Alabama (United States); (2) University of Manitoba (Canada); (1) The University of Alabama (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LMQO2489>

Room G2

GF-2: Electromagnetic Seismic precursors and radio remote sensing of Earth - Part 2

Session Chairs: Giovanni Nico, National Research Council (CNR), Italy; Hans Ulrich Eichelberger, Austrian Academy of Sciences, Austria

Session Conveners: Pier Francesco Biagi, Hans Ulrich Eichelberger, Patrick Galopeau, Giovanni Nico

14:40 - 15:00

Th-GF-PM-11-1 VLF seismic precursor of the Dodecanese islands earthquake swarm (Jan-Feb 2025)

Giovanni Nico (1); Hans Ulrich Eichelberger (2); Aleksandra Nina (3); Mohammed Yahia Boudjada (2); Iren Adelina Moldovan (4); Pier Francesco Biagi (5)
(1) IAC-CNR (Italy); (2) Space Research Institute, Austrian Academy of Sciences (Austria); (3) University of Belgrade (Serbia); (2) Space Research Institute, Austrian Academy of Sciences (Austria)

Sciences (Austria); (4) National Institute for Earth Physics (Romania); (5) University of Bari (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VSMD3482>

Room J1

J10-6: Latest news and observatory reports - Part 6

Session Chairs: [Stefan Wijnholds, ASTRON, Netherlands](#); [Yashwant Gupta, National Centre for Radio Astrophysics TIFR, India](#)

Room J2

JC-3: SETI - Part 3

Session Chairs: [Karen Perez, SETI Institute, United States](#); [Kumar Vijay Mishra, University of Maryland, United States](#)

Session Conveners: [Andrew Siemion, Karen Perez, Mike Garrett, Kumar Vijay Mishra, Taner Şengör](#)

14:40 - 15:00

Th-JC-PM-11-1 The Hat Creek Observatory: A Facility for Technology Development in Radio Astronomy and High-Performance Digital Signal Processing

Colin Rush (1); Karen Perez (1); Jay Frothingham (1); Alexander Pollak (1)
(1) SETI Institute (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZSFS1835>

15:00 - 15:20

Th-JC-PM-11-2 A GPU-Accelerated Real-Time Imaging Pipeline for SETI at the Allen Telescope Array

Karen I. Perez (1); Joe S. Bright (2); Vishal Gajjar (1,3); Luigi F. Cruz (1,4); Andrew P. V. Siemion (1,2,3,4,5,6)

(1) SETI Institute (United States); (2) Astrophysics, Department of Physics, University of Oxford (United Kingdom); (3) Breakthrough Listen, University of California, Berkeley (United States); (4) Berkeley SETI Research Center, UC Berkeley (United States); (5) Radboud University, Department of Astrophysics/IMAPP (Netherlands); (6) University of Malta, Institute of Space Sciences and Astronomy (Malta)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BJMK4819>

15:20 - 15:40

Th-JC-PM-11-3 Origin and Propagation Characteristics of Universal Intelligence: Detectability Conditions of Different or Unknown Intelligence Pathways and Intelligence Networks as self-Embedded Topological Objects in Physical Universes Through Related Wave Formalism with Hidden Processes and Waves (Invited)

Taner Şengör (1)

(1) Yıldız Technical University (Retired) (Turkey)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JMZZ3705>

Room K

K12 & K13: Computational Methods and Engineering for EM Applications

Session Chairs: [Francesca Apollonio, Sapienza University of Rome, Italy](#); [Lourdes Farrugia, University of Malta, Malta](#)

Session Conveners: [Giulia Sacco, Lena Kranold](#)

14:40 - 15:00

Th-K12 & K13-PM-11-1 Electromagnetic and Thermal Safety-Driven Frequency Selection for Radar-Based Antecubital Vein Monitoring (Invited)

Shatabdi Das (1)

(1) The University of Sydney (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OAZP2214>

15:00 - 15:20

Th-K12 & K13-PM-11-2 FORA Based Microwave Phased Array System for Hyperthermia Treatment of Breast Cancer

Therese Quattromani (1); Iman Farhat (1); Julian Bonello (1); Federico Cilia (1); Evan Dimech (1); Staša Cvetković (1); Charles V Sammut (1); Lourdes Farrugia (1)
(1) University of Malta (Malta)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KQIZ5462>

Starting time between 15:40 - 16:39

Room G1

GTut: Commission G Tutorial

Session Chairs: Keith Groves, URSI Commission G Chair

15:40 - 16:40

Th-GTut-PM-17-1 Refraction versus Diffraction: A Multiscale Perspective on Ionospheric Scintillation (Invited)

Luca Spogli (1)
(1) Istituto Nazionale di Geofisica e Vulcanologia (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PPWT1918>

Room P

BTut: Commission B Tutorial

Session Chairs: Henrik Wallen, URSI Commission B Chair

15:40 - 16:40

Th-BTut-PM-17-1 Art and Challenges in Planar Antenna Design (Invited)

Debatosh Guha (1)
(1) Institute of Radio Physics and Electronics, University of Calcutta (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XMHU8974>

Foyer - Poster Area B

P-B-2: Poster Session - Commission B - Part 2

Session Chairs: Henrik Wallen, URSI Commission B Chair

15:40 - 17:40

Th-P-B-PM-17-1 3-D Printed Dual Linearly Polarized Wideband Antenna Array with Equal Feed Lattice Structure

Hong-Kyun Ryu (1); Cheol-Soo Lee (1); In-Seon Kim (1)
(1) Agency for Defense Development (South Korea)
Link to paper: <https://doi.org/10.46620/URSIGASS26/QCOT3539>

15:40 - 17:40

Th-P-B-PM-17-2 A Compact and Multifunctional Folded Transmitarray Featuring Polarization Reconfigurability, Beam-Steering Capability, and Low RCS

Bo Xinzhi (1); Nuno Borges Carvalho (1); Shen Ming (2); Liu Zhen-guo (3)
(1) Universidade de Aveiro (Portugal); (2) Aalborg University (Denmark); (3) Southeast University (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KBSC7185>

15:40 - 17:40

Th-P-B-PM-17-3 A Low-Cost Sequentially Rotated Antenna Array for LEO Satellite Communications

Chongwen Zhu (1); Grzegorz Bogdan (1); Yevhen Yashchysyn (1)
(1) *Warsaw University of Technology (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JWTD7535>

15:40 - 17:40

Th-P-B-PM-17-4 Polarization Anti-Jamming Auxiliary Antenna Design And Anti-Jamming Performance Study

Shufan Xu (1, 2); Kang Luo (1); Qing Wang (1); Wei Liu (2); Jing Chen (1)
(1) *Naval University of Engineering (China)*; (2) *Huazhong University of Science and Technology (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/PUNT6521>

15:40 - 17:40

Th-P-B-PM-17-5 Bifocusing-Based Imaging of Small Dielectric Objects From the Fresnel Dataset

Tae Young HA (1); Minyeob Lee (2); Won-Kwang Park (2); Seong-Ho Son (3)
(1) *National Institute for Mathematical Sciences (South Korea)*; (2) *Kookmin University (South Korea)*; (3) *Soonchunhyang University (South Korea)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WLOD5471>

15:40 - 17:40

Th-P-B-PM-17-6 Direct Sampling Method to Retrieve Small Objects From Two-Dimensional Limited-Aperture Scattered Field Data

Sangwoo Kang (1); Won-Kwang Park (2); Youngho Woo (3)
(1) *Pusan National University (South Korea)*; (2) *Kookmin University (South Korea)*; (3) *National Institute for Mathematical Science (South Korea)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/XWLE3001>

15:40 - 17:40

Th-P-B-PM-17-7 Electromagnetic Scattering and RCS Variability of Plasma-Covered RAM C-II Reentry Vehicle

Berk Bural (1); Onat Mert TAŞCI (1); Abdullah KAYA (1)
(1) *ASELSAN (Turkey)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/YGAX5144>

15:40 - 17:40

Th-P-B-PM-17-8 Exploiting Synthetic Apertures for Simultaneous Multi-Identification of Chipless RFID tags

Andrea Motroni (1); Salvatore Tedesco (2); Andrea Michel (1); Filippo Costa (1)
(1) *Department of Information Engineering, University of Pisa (Italy)*; (2) *Tyndall National Institute (Ireland)*; (1) *Department of Information Engineering, University of Pisa (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/TPJO6195>

15:40 - 17:40

Th-P-B-PM-17-9 A Hybrid Procedural Modeling and 3D Gaussian Splatting Framework for High-Fidelity Electromagnetic Scene Reconstruction and Fast CSI Prediction (Invited)

Jie Ma (1); Lianli L (1)
(1) *Peking University (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FPVS6099>

15:40 - 17:40

Th-P-B-PM-17-10 Analysis of the Quality Factor of the Fano Resonance in Split-ring Resonators

Togo Hozumi (1); Takaya Nakamura (1); Takumi Tamaki (1); Jun Shibayama (1)
(1) Hosei University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NZII3747>

15:40 - 17:40

Th-P-B-PM-17-11 Dual-Polarized Dual-Slot Vivaldi Antenna (Invited)

Yangxin Sang (1); Weiliang Yu (1); Zhongxiang Shen (2)
(1) Hangzhou Dianzi University (China); (2) Yangtze Delta Region Academy of Beijing
Institute of Technology (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HKZI2723>

15:40 - 17:40

Th-P-B-PM-17-12 Global Search Algorithm for Complex Zeros and Poles Using Tracking of Complex Phase Bridges and Modified Search Function

Jerzy Michalski (1)
(1) SpaceForest (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NQVC5266>

15:40 - 17:40

Th-P-B-PM-17-13 Investigation of Simultaneous Switching Noise Coupling Mechanisms in Multilayer PCBs

Cheng-Yi Zhuang (1); Tao-Meng Shu (1)
(1) National Taipei University of Technology (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OHOC9725>

15:40 - 17:40

Th-P-B-PM-17-14 Surrogate Modeling of On-Body Channels via Equivalent Electromagnetic Sources (Invited)

Shalitha Pathirana (1); Xiaoyuan Sun (1); Yang Hao (1)
(1) Queen Mary University of London (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NKAV2684>

15:40 - 17:40

Th-P-B-PM-17-15 A Data-Free Patch Antenna Generation Framework via Two-Stage Gradient Exploration and BiScaleNorm

Peng-Yu Chian (1); Ting-Mao Chen (1); Kuo-Hung Cheng (1); Wei-Wen Wu (1); Alan Liu (1);
Shih-Cheng Lin (1); Sheng-Fuh Chang (1)

(1) National Chung Cheng University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UDXL9042>

15:40 - 17:40

Th-P-B-PM-17-16 Geometry-Aware Machine Learning for Urban Path Loss Prediction Using OSM (Invited)

Ishan Fernando (1); Rahul Dutta (1); Rui Xu (1); Yang Hao (1)
(1) Queen Mary University of London (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DITT3930>

15:40 - 17:40

Th-P-B-PM-17-17 Modeling of RF SiGe HBTs with Different Geometries using Transfer Learning Technique-

Chie-In Lee (1); Shi-Yan Zhang (1); Shih-Chieh Li (1); Jia-Han Yang (1); Guan-Liang Liu (1)
(1) *National Sun Yat-Sen University (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HSUJ5976>

15:40 - 17:40

Th-P-B-PM-17-18 Random Forest-Based Recognition of Radar Active Jamming Signals

Yujie Zhao (1); Caiqin Liu (1); Qu Yue Zhu (1); Mingwei Qin (1)
(1) *Southwest University of Science and Technology (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GAZE8521>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/Aa542MRWQGqb8MDC>

15:40 - 17:40

Th-P-B-PM-17-19 Exploiting quasi-digital systems to emulate Boolean operations

Ross Glyn MacDonald (1); Andrew M. Naylor (1); Alex Yakovlev (1); Victor Pacheco-Peña (1)

(1) *Newcastle University (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DWUS4255>

15:40 - 17:40

Th-P-B-PM-17-20 Study on the Point Connection Issue in Pixel-Based Metasurface Design

In-June Hwang (1); Haewon Jung (1); Dal-Jae Yun (2); Young-Pyo Hong (1); In-Ho Lee (1)
(1) *Korea Research Institute of Standards and Science (South Korea)*; (2) *Chungnam National University (South Korea)*; (1) *Korea Research Institute of Standards and Science (South Korea)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DCVH2406>

15:40 - 17:40

Th-P-B-PM-17-21 1-Bit Unit-Cell Design for Reconfigurable Reflectarray Antenna in Ku-Band

Minyu Zhang (1); Yevhen Yashchysyn (1)
(1) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DGAM3657>

15:40 - 17:40

Th-P-B-PM-17-22 Bit Unit-Cell Design for Reconfigurable Reflectarray Antenna in Microwave Band

Minyu Zhang (1); Yevhen Yashchysyn (1)
(1) *Warsaw University of Technology (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/NYRG9487>

15:40 - 17:40

Th-P-B-PM-17-23 Digital-to-Physical Electromagnetic Twin: Bridging 3DGS-based Virtual Environments and RIS-enabled Physical Signal Emulation (Invited)

Jie Ma (1); Yanjin Chen (1); Lianli L (1)
(1) *Peking University (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BZNY9215>

15:40 - 17:40

Th-P-B-PM-17-24 Simultaneous Beam Steering and Data Modulation using a 2-bit Reconfigurable Intelligent Surface

Thinh Nguyen (1)

(1) *University of Oulu (Finland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HMQU6318>

15:40 - 17:40

Th-P-B-PM-17-25 Water-Based Fluidic Reconfigurable Intelligent Surface

Rana Muhammad Hasan Bilal (1); Yi Wang (2); Filippo Costa (3)

(1) *University of Pisa (Italy)*; (2) *University of Birmingham (United Kingdom)*; (3)

Department of Information Engineering, University of Pisa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CBDO1796>

15:40 - 17:40

Th-P-B-PM-17-26 Thermal Effects on D-Band Antenna Performance in Sub-THz Antenna-in-Package Systems

Chiara Di Benedetto (1); Fabio Moni (1); Andrea Michel (1); Francesco Filice (2); Paolo Nepa (1)

(1) *University of Pisa (Italy)*; (2) *Interuniversity Microelectronics Centre (imec) (Belgium)*;

(1) *University of Pisa (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HPYV2071>

15:40 - 17:40

Th-P-B-PM-17-27 Angle-Resolved Spectroscopic Kinematics SPR: A Novel Approach to Optical Sensing

Stanislaw Karcz (1); Anna Paleczek (1); Mateusz Kocon (1); Dominik Grochala (1); Tomasz Machnik (1); Jan Mrzyglod (1); Artur Rydosz (1)

(1) *AGH University of Krakow (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KKRA3885>

15:40 - 17:40

Th-P-B-PM-17-28 Hybrid MPPT Strategies Applied to Miniaturized Multicell PV Modules

Mateusz Kocoń (1); Barbara Swatowska (1); Artur Rydosz (1)

(1) *AGH University of Krakow (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/GOIV1128>

15:40 - 17:40

Th-P-B-PM-17-29 Method for Decreasing the Direction-Finding Ambiguity Probability Using Two Sets of Array Spacings

Hong-Kyun Ryu (1); Jung Hoon Lee (1); Jeil Jo (1)

(1) *Agency for Defense Development (South Korea)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JRYR8171>

15:40 - 17:40

Th-P-B-PM-17-30 In-situ estimation of radiated emissions of large equipment in semi-reverberant environments

Eyob Woldamanuel (1)

(1) *Eindhoven University of Technology (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/AGHK2461>

15:40 - 17:40

- Th-P-B-PM-17-31 Extracting Hamiltonian Parameters for Flopping Mode Qubits from Finite Element Method Quantum Device Simulations (Invited)**
Brian Malone (1); Andrii Semenov (2); Andrii Sokolov (2); Ilhami Ünal (1); Elena Blokhina (1)
(1) School of Electrical and Electronic Engineering, University College Dublin (Ireland); (2) Equal 1 Laboratories Ireland Limited (Ireland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ODDP3308>

15:40 - 17:40

- Th-P-B-PM-17-32 Investigations on a Dipole-Based Electromagnetic Analogue of Spin-Photon Interaction (Invited)**
Ilhami Ünal (1); Brian Malone (1); Andrii Semenov (2); R. Bogdan Staszewski (1); Elena Blokhina (1)
(1) School of Electrical and Electronic Engineering, University College Dublin (Ireland); (2) Equal 1 Laboratories Ireland Limited (Ireland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WJUE7986>

15:40 - 17:40

- Th-P-B-PM-17-33 A Full-Wave Electromagnetic Workflow for cQED Coupling Parameter Extraction (Invited)**
Ilhami Ünal (1); Brian Malone (1); Andrii Semenov (2); R. Bogdan Staszewski (1); Elena Blokhina (1)
(1) School of Electrical and Electronic Engineering, University College Dublin (Ireland); (2) Equal 1 Laboratories Ireland Limited (Ireland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NXAW5228>

Foyer - Poster Area D

P-D-2: Poster Session - Commission D - Part 2

Session Chairs: [Atsushi Kanno](#), URSI Commission D Chair

15:40 - 17:40

- Th-P-D-PM-17-1 The concept and trade-off analysis of scintillators for the EVE CURiE stratospheric radiation experiment (Invited)**
Dorota Kazibudzka (1); Marek Pąsko (1); Aleksander Tytus (1); Marcel Szubartowski (1); Paulina Kucharczyk (1); Dominika Pytlak (1); Selim Mucharski (1); Natalia Kwaśna (1); Anna Keller (1); Michał Krajewski (1); Małgorzata Stacherczak (1); Justyna Obrępańska (1); Paweł Polanowski (1); Julia Dollani (1); Monika Marek (1); Karolina Wiśniewska (1); Tomasz Miś (2); Damian Grabowski (1)
(1) Warsaw University of Technology (Poland); (2) Space Research Centre of the Polish Academy of Sciences (Poland); (1) Warsaw University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XUQT2156>

15:40 - 17:40

- Th-P-D-PM-17-2 Design of the EVE CURiE stratospheric photovoltaic-scintillator experiment**
Marek Pąsko (1); Damian Grabowski (1); Tomasz Miś (2); Dorota Kazibudzka (1); Aleksander Tytus (1); Marcel Szubartowski (3); Paulina Kucharczyk (1); Dominika Pytlak (1); Selim Mucharski (1); Natalia Kwaśna (1); Anna Keller (1); Michał Krajewski (1); Małgorzata Stacherczak (1); Justyna Obrępańska (1); Paweł Polanowski (1); Julia Dollani (1); Monika Marek (1); Karolina Wiśniewska (1)
(1) Warsaw University of Technology (Poland); (2) Space Research Centre of the Polish Academy of Sciences (Poland); (1) Warsaw University of Technology (Poland); (3) Warsaw

University of Technology, Division of Theory of Machines and Robots (Poland); (1) Warsaw
University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/OVQW3310>

15:40 - 17:40

- Th-P-D-PM-17-3 HAO: A Concurrent Hybrid Acoustic–Optical Modem for Reliable Tetherless ROV Teleoperation and Video Uplink**
Jiajie Xu (1); Mohamed-Slim Alouini (1)
(1) King Abdullah University of Science and Technology (KAUST) (Saudi Arabia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/EYHT9388>

15:40 - 17:40

- Th-P-D-PM-17-4 Analysis of Enhancing Error Correction Reliability Through Codeword Organization**
Konrad Domian (1); Jacek Rosiak (1); Witold Pleskacz (2)
(1) Cadence Design Systems (Poland); (2) Warsaw University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YJUP9825>

15:40 - 17:40

- Th-P-D-PM-17-5 Application of the Magnetoelectric Transducers for Energy Harvesting from the Environment (Invited)**
Karol Kuczynski (1); Piotr Bilski (1)
(1) Warsaw University of Technology (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/OXGU7920>

15:40 - 17:40

- Th-P-D-PM-17-6 A 32 × 64 CMOS SPAD Array for Broad-Spectrum Low-Light Imaging and Sensing**
Zhenjie Wang (1); Bhaskar Choubey (1)
(1) Institute of Analogue Circuits and Image Sensors, University of Siegen (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KUYG6724>

15:40 - 17:40

- Th-P-D-PM-17-7 Phase-control technique in space-waveguide coupling system**
Seigo Ohno (1, 2); Hiroaki Minamide (2)
(1) Tohoku University (Japan); (2) RIKEN (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KOBJ2186>

15:40 - 17:40

- Th-P-D-PM-17-8 Terahertz generation based on photo-Dember effect and application to focusing**
Hiroaki Shirasaka (1); Victor Isao Iwanaga (1); Seigo Ohno (1)
(1) Tohoku University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LFLE1685>

15:40 - 17:40

- Th-P-D-PM-17-9 Physics-Guided Multi-Branch Learning for Joint I–V and C–V Based Physical Parameter Inference of Anti-Parallel Schottky Diode Pairs**
Zhengyang You (1); Nuno Borges Carvalho (2); Ming Shen (3); Xiaoping Zheng (1)
(1) Tsinghua University (China); (2) Instituto de Telecomunicações de Aveiro (Portugal); (3) Aalborg University (Denmark); (1) Tsinghua University (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GLPR4516>

15:40 - 17:40

Th-P-D-PM-17-10 Stabilized MMW Communication via High-Directivity Waveguide Photomixing and Unique Quasi-Optical Design

Daniel Rozban (1); Nadav Pinhasi (1)

(1) *Ariel University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YWPS1023>

15:40 - 17:40

Th-P-D-PM-17-11 Electronically Tunable Wideband Absorptive Bandstop Filter

Yo-Shen Lin (1); Han-Yuan Chang (1)

(1) *National Central University (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JTDK6791>

15:40 - 17:40

Th-P-D-PM-17-12 A 4.8-mW Wideband Current-Reuse LNA with Flat Gain and Noise Figure for 6G FR3 Applications in 90-nm CMOS

Hwann-Kaeo Chiou (1); Shiuan-Han Huang (1); Chien-Nan Kuo (2)

(1) *National Central University (Taiwan)*; (2) *National Yang Ming Chiao Tung University (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WORS4134>

15:40 - 17:40

Th-P-D-PM-17-13 Spins in Solids Revealed by Cryogenic Whispering-Gallery Microwave Spectroscopy: LiF and Isotopically Enriched Si-28

Steven Samuels (1); William Campbell (1); Michael Tobar (1); Maxim Goryachev (1)

(1) *University of Western Australia (Australia)*

Link to paper: <https://doi.org/10.46620/26-0050>

15:40 - 17:40

Th-P-D-PM-17-14 THz Communication System Using Photonics-Based Transmitter and Hot Electron Bolometer Mixer

Isao Morohashi (1, 2); Kazuhiro Kobayashi (2); Yoshihisa Irimajiri (1); Akira Kawakami (1); Norihiko Sekine (1)

(1) *National Institute of Information and Communications Technology (Japan)*; (2) *Tokyo Metropolitan University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KBTO7274>

15:40 - 17:40

Th-P-D-PM-17-16 ER-Boost Mach-Zehnder Modulation Enabling Ultra-High Extinction Without Ideal Power Splitters

Shi Ziyuan (1); Alouini Mohamed-Slim (1)

(1) *King Abdullah University of Science and Technology (KAUST) (Saudi Arabia)*

Link to paper: <https://doi.org/10.46620/26-0107>

Foyer - Poster Area F

P-F-2: Poster Session - Commission F - Part 2

Session Chairs: *Motoyuki Sato, URSI Commission F Chair*

15:40 - 17:40

Th-P-F-PM-17-1 Characteristics of liquid water path and integrated water vapor under precipitating conditions using the WegenerNet 3D Open-Air Laboratory

Esmail Ghaemi (1); Ulrich Foelsche (1); Andreas Kvas (1)

(1) *University of Graz (Austria)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WZJE1640>

15:40 - 17:40

- Th-P-F-PM-17-2 A Comparative Study of deep Learning Models for Marine Plastic Detection**
Vikash Kumar Mishra (1); Sunitha Santosh (2); Amit Kumar Mishra (2, 3); Michael Lupa (3)
(1) School of Computer Science, University of Petroleum and Engineering Studies (UPES),
Dehradun, Uttarakhand (India); (2) University West (Sweden); (3) AGH University of
Krakow (Poland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/INBA3334>

15:40 - 17:40

- Th-P-F-PM-17-3 Shape-Based Detection of Drone Micro-Doppler at 94 GHz Using Bending-Aware Spectrogram Templates**
Nezah Balal (1)
(1) Department of Electrical and Electronics Engineering, Ariel University (Israel); (2) Afeka
College of Engineering (Israel)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IJXF2786>

15:40 - 17:40

- Th-P-F-PM-17-4 Simultaneous Bistatic Radar Detection of Multiple Geosynchronous Satellites Using Radio Astronomy Receivers**
Ken Smart (1); Andrew Kintz (2); Alexander Kobsa (2); Timothy Brown (2); Gregory Hogan
(2); Léa Powers (1); Douglas Hayman (1); Andrew Hellicar (1); Nick Carter (3)
(1) CSIRO (Australia); (2) MIT Lincoln Laboratory (United States); (1) CSIRO (Australia); (3)
CSIRO (Australia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SXAB7127>

15:40 - 17:40

- Th-P-F-PM-17-5 Deterministic Channel Impulse Response Analysis and Frequency Selective Performance of a Tower Mounted Wind Turbine Wireless Link**
Shashank Rao (1); Jacqueline Walker (1)
(1) University of Limerick (Ireland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YOZR9534>

15:40 - 17:40

- Th-P-F-PM-17-6 Impact of Access-Point Placement on Path Loss and Temporal Dispersion in an Indoor Corridor at 28 and 38 GHz**
Tomasz Grasza (1); Jarosław Wojtuń (1); Cezary Ziótkowski (1); Jan M. Kelner (1);
Aniruddha Chandra (2)
(1) Institute of Communications Systems, Military University of Technology (Poland); (2)
ECE Department, National Institute of Technology Durgapur (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/PWOW5224>

15:40 - 17:40

- Th-P-F-PM-17-7 Wi-Fi HaLow (IEEE 802.11ah) for Long-Range Monitoring Links: Point-to-Point NLoS/LoS and LoS Mesh Field Characterization**
Jiajie Xu (1); Chaabane Mankai (1); Mohamed-Slim Alouini (1)
(1) King Abdullah University of Science and Technology (KAUST) (Saudi Arabia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ASMP3261>

Foyer - Poster Area H

P-H-2: Poster Session - Commission H - Part 2

Session Chairs: *Craig J. Rodger, URSI Commission H Chair*

15:40 - 17:40

Th-P-H-PM-17-1 Development of an Electric Field Observation System in Space Plasmas utilizing a Floating Power Supply System applied with Bootstrapping Techniques

Keita Tanaka (1); Satoshi Kurita (1); Hirotsugu Kojima (1)
(1) *Kyoto University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WLQM7072>

15:40 - 17:40

Th-P-H-PM-17-2 Monte Carlo generation of Kappa distributions in kinetic plasma simulations

Seiji Zenitani (1); Shunsuke Usami (2); Shuichi Matsukiyo (3); Takayuki Umeda (4)
(1) *Space Research Institute (Austria)*; (2) *National Institute for Fusion Science (Japan)*; (3) *Kyushu University (Japan)*; (4) *Hokkaido University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/EOD5947>

15:40 - 17:40

Th-P-H-PM-17-3 Statistical Analysis on Electrostatic Waves driven by Whistler-mode Waves Observed by the Arase Satellite

Towa Yoshida (1); Satoshi Kurita (1); Hirotsugu Kojima (1); Yoshiya Kasahara (2); Shoya Matsuda (2); Ayako Matsuoka (1); Yoshizumi Miyoshi (3); Tomoaki Hori (3); Mariko Teramoto (4); Kazuhiro Yamamoto (3); Iku Shinohara (5)
(1) *Kyoto University (Japan)*; (2) *Kanazawa University (Japan)*; (1) *Kyoto University (Japan)*; (3) *Nagoya University (Japan)*; (4) *Kyushu Institute of Technology (Japan)*; (3) *Nagoya University (Japan)*; (5) *Japan Aerospace Exploration Agency (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VFXK9144>

15:40 - 17:40

Th-P-H-PM-17-4 Relativistic Electron Scattering by High-Frequency EMIC Waves: Test-particle Results

Kyungguk Min (1)
(1) *Chungnam National University (South Korea)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WIYV6986>

15:40 - 17:40

Th-P-H-PM-17-5 Analysis of EMIC Waves Observed by DEMETER During Geomagnetic Storms

David Pisa (1); Benjamin Grison (1); Niklas Grimmich (1); Ondrej Santolik (1, 2); Michel Parrot (3)
(1) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*; (2) *Charles University, Faculty of Mathematics and Physics (Czech Republic)*; (3) *Saint-Avertin (France)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZUZL3880>

15:40 - 17:40

Th-P-H-PM-17-6 A Conjunction Study of ULF Modulation of Chorus Waves During Pulsating Aurora Events

Lillian Daneshmand (1); Allison Jaynes (1); Keith Vidal (1)
(1) *University of Iowa (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/CXYI3859>

15:40 - 17:40

Th-P-H-PM-17-8 The IMPACT Project: A Microsatellite Mission to Investigate Ducting Magnetospheric Plasma Wave Activity

Shoya Matsuda (1); Satoshi Yagitani (1); Daisuke Yonetoku (1); Yoshiya Kasahara (1); Tomohiko Imachi (1); Yasuhiro Shoji (1); Tatsuya Sawano (1); Makoto Arimoto (1); Ichiro Jikuya (1); Mitsunori Ozaki (1); Mariko Kimura (1); Shutaro Ueda (1); Yuto Katoh (2); Atsushi Kumamoto (2); Satoshi Kasahara (3); Takefumi Mitani (4); Hirotsugu Kojima (5); Satoshi Kurita (5); Takahiro Zushi (6); Yoshiharu Omura (5); Yoshizumi Miyoshi (7); Mariko Teramoto (8); Kentaro Kitamura (8); Shinji Saito (9); Iku Shinohara (4); Kazushi Asamura (4) *(1) Kanazawa University (Japan); (2) Tohoku University (Japan); (3) The University of Tokyo (Japan); (4) Japan Aerospace Exploration Agency (Japan); (5) Kyoto University (Japan); (6) Nara Institute of Science and Technology (Japan); (5) Kyoto University (Japan); (7) Nagoya University (Japan); (8) Kyushu Institute of Technology (Japan); (9) NICT (Japan); (4) Japan Aerospace Exploration Agency (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/HHVI4539>

15:40 - 17:40

Th-P-H-PM-17-9 Validation of results from EGATEC model of the GEC with Świder atmospheric and meteorological data 1998-2005

Anna Odzimek (1); Ruben Romero (2); Jose Tacza (1) *(1) Institute of Geophysics Polish Academy of Sciences (Poland); (2) Mackenzie Presbyterian University (Brazil); (1) Institute of Geophysics Polish Academy of Sciences (Poland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ELPK1472>

15:40 - 17:40

Th-P-H-PM-17-10 Computer Simulations of Spacecraft Potential Variations Caused by Hypervelocity Dust Impacts

Tung-Jun Lin (1); Satoshi Kurita (1); Hirotsugu Kojima (1); Jin Nakazono (2); Yohei Miyake (2); Hideyuki Usui (2)

(1) Kyoto University (Japan); (2) Kobe University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VCFJ1232>

15:40 - 17:40

Th-P-H-PM-17-11 Modeling Ionospheric Scintillation with Full Electromagnetic and Ray-Tracing Simulations

Rafay Mahmood (1); Elias Hirvonen (2); Kirsti Kauristie (2); Esa Kallio (1)

(1) Aalto University (Finland); (2) Finnish Meteorological Institute (Finland); (1) Aalto University (Finland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EPWR8023>

15:40 - 17:40

Th-P-H-PM-17-12 Coordinated CubeSat and Ground-Based HF Studies of the Ionosphere: Suomi 100 Meets HAARP

Esa Kallio (1); Paul Bernhardt (2); Antti Kero (3); Ari-Matti Harri (4); Olli Knuuttila (1); Joonas Niittyniemi (1); Anita Aikio (3); Elias Hirvonen (4); Riku Jarvinen (4); Kirsti Kauristie (4); Antti Kestilä (4); Petri Koskimaa (4); Leo Nyman (4); Rafay Mahmood (1); Pyry Peitso (1); Jouni Rynö (4); Heikki Vanhamäki (3); Noora Partamies (5); Stanley Briczinski (6)

(1) Aalto University (Finland); (2) University of Alaska (United States); (3) University of Oulu (Finland); (4) Finnish Meteorological Institute (Finland); (1) Aalto University (Finland); (3) University of Oulu (Finland); (4) Finnish Meteorological Institute (Finland); (1) Aalto University (Finland); (4) Finnish Meteorological Institute (Finland); (3) University of Oulu

(Finland); (5) University Centre in Svalbard (Norway); (6) Naval Research Laboratory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QAHN6251>

15:40 - 17:40

Th-P-H-PM-17-13 Particle-in-cell Simulations of Electromagnetic/Electrostatic Signatures associated with the High-Speed Movement of Objects through Ionospheric Plasma

Yohei Miyake (1)

(1) Kobe University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WUFB4548>

15:40 - 17:40

Th-P-H-PM-17-14 Multi-Instrument Observations of Downward Terrestrial Gamma-Ray Flashes in Japanese Thunderstorms

Andrea Kolinska (1); Yuuki Wada (2); Takeshi Morimoto (3); Ting Wu (4); Yuji Takayanagi (3); Daohong Wang (4); Harufumi Tsuchiya (5)

(1) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (2) Faculty of Science, Hokkaido University (Japan); (3) Kindai University (Japan); (4) Gifu University (Japan); (3) Kindai University (Japan); (4) Gifu University (Japan); (5) Nuclear Science and Engineering Center, Japan Atomic Energy Agency (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SLYG2366>

15:40 - 17:40

Th-P-H-PM-17-15 On X-class solar flares influence on ELF impulse propagation in the Earth-ionosphere waveguide and following ULF/ELF magnetic fluctuations

Zenon Nieckarz (1); Michał Ostrowski (1); Janusz Mlynarczyk (2); Jerzy Kubisz (1); Adam Michalec (1); Mark Gołkowski (3); Janos Lichtenberger (4)

(1) Jagiellonian University in Kraków (Poland); (2) AGH University of Krakow (Poland); (1) Jagiellonian University in Kraków (Poland); (3) University of Colorado Denver (United States); (4) Eötvös University (Hungary)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YRDD5018>

15:40 - 17:40

Th-P-H-PM-17-16 Periodicities and secular variations in Świder thunder days 1957-2005

Anna Odzimek (1); José Tacza (1)

(1) Institute of Geophysics Polish Academy of Sciences (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RGST1853>

15:40 - 17:40

Th-P-H-PM-17-17 Transient Luminous Events triggered by negative lightning discharges in central and southern Europe

Janusz Mlynarczyk (1); Martin Popek (2); Sonia Wilaszek (1); Ivana Kolmašová (2, 3); Jerzy Kubisz (4)

(1) AGH University of Krakow (Poland); (2) Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic); (3) Charles University (Czech Republic); (4) Jagiellonian University in Kraków (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KIBD2234>

15:40 - 17:40

Th-P-H-PM-17-18 Analysis and Calibration of Pointing Errors for the 30-Meter Interplanetary Scintillation Telescope in the Phase II of the Meridian Project

Cang Su (1); Wei Wang (1); Ming Xiong (1); Yihua Yan (1)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SNJI3752>

15:40 - 17:40

Th-P-H-PM-17-19 Role of Cyclotron Maser Instability in the Study of Emission Cone of Jovian Decameter Radiation

Patrick Galopeau (1); Mohammed Boudjada (2)
(1) *LATMOS-CNRS (France)*; (2) *Space Research Institute (Austria)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LHJB2003>

Foyer - Poster Area K

P-K-2: Poster Session - Commission K - Part 2

Session Chairs: *Francesca Apollonio, URSI Commission K Chair*

15:40 - 17:40

Th-P-K-PM-17-2 The Impact of Electromagnetic Fields on Human Health in Light of Survey Research

Tomasz Rok (1); Andrzej Żądło (1)
(1) *Jagiellonian University Medical College, Faculty of Medicine (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EXLE3033>

15:40 - 17:40

Th-P-K-PM-17-3 Experimental Investigation of Auditory Effects Associated with High-Frequency Pulsed Electromagnetic Field Exposure

Shotaro Inamori (1); Kan Okubo (1); Salam Hadi (1); Masao Taki (1); Toshio Kamijo (1); Aki Hada (1); Junichi Hata (1); Mari Ueda (2); Tsubasa Kusano (1); Yasuo Terao (3); Mayumi Okamoto (3); Yukihisa Suzuki (1)
(1) *Tokyo Metropolitan University (Japan)*; (2) *Kanagawa Institute of Technology (Japan)*; (1) *Tokyo Metropolitan University (Japan)*; (3) *Kyorin University (Japan)*; (1) *Tokyo Metropolitan University (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SCIM7011>

15:40 - 17:40

Th-P-K-PM-17-4 Determination of a 28-Day Exposure Dose for Animal Study under Simultaneous 4G and 5G EMF Exposure

Sangbong Jeon (1); Duksoo Kwon (1); Ae-kyoung Lee (1); Jungick Moon (1)
(1) *Electronics and Telecommunications Research Institute (South Korea)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ESXX3859>

15:40 - 17:40

Th-P-K-PM-17-5 Modeling of SAR in the user of the 433 MHz remote controller of construction machineries

Patryk Zradziński (1); Jolanta Karpowicz (1); Krzysztof Gryz (1)
(1) *Central Institute for Labour Protection (Poland)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EZKB1735>

15:40 - 17:40

Th-P-K-PM-17-6 Fixed versus randomized selection of SAR scenarios for measurement system validation

Emmanuelle Conil (1); Mehdi Ramdani (1); Youssef Toudert (1); Ourouk Jawad (1)
(1) *Agence nationale des fréquences (France)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SGQS3618>

15:40 - 17:40

Th-P-K-PM-17-7 Spatiotemporal Validation of RF-EMF Exposure Maps Derived from Citizen Science Measurements

Arunik Baruah (1); Nekane Sandoval-Diez (2); Lea Belácková (1); Lloyd Roga (1); Hamed Jalilian (2); Jürg Fröhlich (3); Arno Thielens (4); Martin Rösli (2); Anke Huss (1)
(1) *Institute for Risk Assessment Sciences, Utrecht University (Netherlands)*; (2) *Swiss Tropical and Public Health Institute (Switzerland)*; (1) *Institute for Risk Assessment Sciences, Utrecht University (Netherlands)*; (2) *Swiss Tropical and Public Health Institute (Switzerland)*; (3) *Fields at Work LLC (Netherlands)*; (4) *The Graduate Center of the City University of New York (United States)*; (2) *Swiss Tropical and Public Health Institute (Switzerland)*; (1) *Institute for Risk Assessment Sciences, Utrecht University (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/NJUP3613>

15:40 - 17:40

Th-P-K-PM-17-8 Electromagnetic characterization of a medical device for Tecar therapy with analysis of the radiated field

Marco Valentini (1); Giancarlo Burriesci (1); Simona D'Agostino (1); Edoardo Piero Masini (2); Francesca Apollonio (2); Riccardo Di Liberto (3); Federica Censi (4)
(1) *Italian National Institute for Insurance against Accidents at Work (Italy)*; (2) *Sapienza University of Rome (Italy)*; (3) *Fondazione IRCCS Policlinico San Matteo (Italy)*; (4) *Italian National Institute of Health (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BHWC9052>

15:40 - 17:40

Th-P-K-PM-17-9 Influence of Pulse Shape and Coil Orientation on TMS Activation Patterns Using Biophysical Axon Models

Wenzhe He (1); Ilkka Laakso (1)
(1) *Aalto University (Finland)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/NDOA9536>

15:40 - 17:40

Th-P-K-PM-17-10 Experimental Study of Microwave-Assisted Fryer Heating Utilizing SIW Slot Antennas

Soichiro Usui (1); Tadashi Kawai (1)
(1) *University of Hyogo (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JQHK3715>

15:40 - 17:40

Th-P-K-PM-17-11 Fundamental Study on Backscatter Communication Robust to Implant Depth for Abdominal Implantable Devices

Dairoku Muramatsu (1); Yukino Sasaki (1)
(1) *The University of Electro-Communications (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UEEN2096>

15:40 - 17:40

Th-P-K-PM-17-12 Preliminary Numerical Evaluation of FMCW Radar Performance for Heart and Respiratory Rate Estimation (Invited)

Simona Di Meo (1); Luna Signori (1); Federica Poli (1); Marco Pasian (1)
(1) *Università degli Studi di Pavia (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/VHYC9279>

15:40 - 17:40

Th-P-K-PM-17-13 Conductive-Embroidered Logo Antenna for Clothing

Dairoku Muramatsu (1); Yukino Sasaki (1); Miyu Kodama (1)
(1) *The University of Electro-Communications (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SYRR4029>

Starting time between 16:40 - 17:39

Room P

JTut: Commission J Tutorial

Session Chairs: [Agnieszka Slowikowska, Joint Institute for VLBI ERIC, Netherlands](#)

16:40 - 17:40

Th-JTut-PM-23-1 LOFAR: From Concept to Continental Observatory (Invited)

Michiel Van Haarlem (1)
(1) *LOFAR ERIC (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MKYA3597>

Starting time between 16:40 - 17:39

Friday, 21 August 2026

Starting time between 08:00 - 09:29

Room B1

B05-3: Propagation and scattering: advances, trends and new applications - Part 3

Session Chairs: *Guido Lombardi, Politecnico di Torino, Italy; Cristina Ponti, Roma Tre University, Italy*

Session Conveners: *Danilo Erricolo, Thomas Kuerner, Guido Lombardi*

08:30 - 08:50

Fr-B05-AM-04-1 Electromagnetic wave-based structures for computing mathematical operations: from microwaves to optics (Invited)

Victor Pacheco-Peña (1)

(1) *Newcastle University (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KIAY7518>

08:50 - 09:10

Fr-B05-AM-04-2 Efficient cylindrical-wave based forward approach for accurate field prediction of targets in a dielectric slab (Invited)

Antonio Cuccaro (1); Alessandro Fedeli (2); Mohammad Omki (2); Cristina Ponti (3);

Emanuela Proietti (4); Andrea Randazzo (2); Raffaele Solimene (1)

(1) *University of Campania "Luigi Vanvitelli" (Italy)*; (2) *University of Genoa (Italy)*; (3)

Roma Tre University (Italy); (4) *Institute for Microelectronics and Microsystems, National*

Research Council of Italy (Italy); (2) *University of Genoa (Italy)*; (1) *University of Campania*

"Luigi Vanvitelli" (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RTNW6033>

09:10 - 09:30

Fr-B05-AM-04-3 Machine-Learning-Based Channel Matrix Identification for MIMO Hybrid-Beamforming Under General Interference

Avner Elgam (1); Yossi Peretez (2); Yosef Pinhasi (1)

(1) *Ariel University (Israel)*; (2) *Lev Academic Center Jerusalem, College of Technology*

(Israel); (1) *Ariel University (Israel)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UWTT6557>

Room D

HG2-1: Active Experiments in Space Plasmas - Part 1

Session Chairs: *Robert Moore, University of Florida, United States; Mark Golkowski, University of Colorado Denver, United States*

Session Conveners: *Robert Moore, Mark Golkowski*

08:30 - 08:50

Fr-HG2-AM-04-1 VLF Whistler-mode Waves in Inner Radiation Belts Observed with the Demonstration & Science Experiments (DSX) Satellite: Active & Passive Measurements (Invited)

Umrhan Inan (1, 2)

(1) *Koc University (Turkey)*; (2) *Stanford University (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZFLZ7543>

08:50 - 09:10

Fr-HG2-AM-04-2 Magnetospheric VLF “Boomerang” Echo Properties Observed on the DSX Satellite

Ahmet Hamdi Unal (1); Umran Inan (1, 2); David Lauben (2); Ivan Linscott (2); Gregory Ginet (3); Bill Farrell (4)

(1) Koc University (Turkey); (2) Stanford University (United States); (3) MIT Lincoln Laboratory (United States); (4) Space Science Institute (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/AYS6378>

09:10 - 09:30

Fr-HG2-AM-04-3 A new type of VLF emission triggered by short pulses radiated from the DSX spacecraft

David Lauben (1); Umran Inan (1, 2); Ahmet Unal (2); Ivan Galkin (3)

(1) Stanford University (United States); (2) Koc University (Turkey); (3) University of Massachusetts (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EMXE2539>

Room F

F13: Microwave Remote Sensing of Vegetation and Terrestrial Snow

Session Chairs: Simonetta Paloscia, CNR-IFAC, Italy

Session Conveners: Simonetta Paloscia, Emanuele Santi

08:30 - 08:50

Fr-F13-AM-04-1 Measurement of Liquid Water Content in Snow from Density-Insensitive Microwave Attenuation

Marco Niederberger (1); Sebastian Droz (1); Shaarujan Kamalanathan (1); Michel A. Nyffenegger (1); Albert Loichinger (1); Hans-Dieter Lang (1)

(1) OST Eastern Switzerland University of Applied Sciences (Switzerland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DBYG2456>

08:50 - 09:10

Fr-F13-AM-04-2 Model Study of Microwave Emission of Snowpack Bounded by Rough Boundaries (Invited)

Ying Yang (1); Kun-Shan Chen (1)

(1) Nanjing University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SVMO4589>

09:10 - 09:30

Fr-F13-AM-04-3 Estimate of soil moisture and vegetation biomass by exploiting A/P multifrequency microwave data through a disaggregation method based on machine learning (Invited)

Simonetta Paloscia (1); Emanuele Santi (1); Simone Pettinato (1); Giacomo Fontanelli (1); Fabrizio Baroni (1); Leonardo Santurri (1)

(1) CNR-IFAC (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FXVM9532>

Room G1

G13-5: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 5

Session Chairs: Vincenzo Romano, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Iwona Stanisławska, *Centrum Badan Kosmicznych PAN, Poland*; Anthea Coster, *MIT Haystack Observatory, United States*

Session Conveners: Vincenzo Romano, Iwona Stanisławska, Anthea Coster

08:30 - 08:50

Fr-G13-AM-04-1 Chemistry in the D-region and HF absorption

Pauline Teyssseyre (1); Carine Briand (1)

(1) *Observatoire de Paris-PSL (France)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UGZS7326>

08:50 - 09:10

Fr-G13-AM-04-2 Long Distance Doppler HF Monitoring of the Ionosphere for Space Weather Operational Services

Artem Reznichenko (1, 2); Andriy Zalizovski (1, 2); Oleksandr Koloskov (3, 2); Sergiy Kashcheyev (2); Volodymyr Lisachenko (2); Łukasz Tomasik (1); Iwona Stanisławska (1); Mariusz Pożoga (1)

(1) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (2) *Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine)*; (3) *University of New Brunswick (Canada)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJZN8274>

09:10 - 09:30

Fr-G13-AM-04-3 International Committee on Global Navigation Satellite Systems: Space Weather

Sharafat Gadimova (1)

(1) *UNOOSA (Austria)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BXUN4661>

Room G2

G04-4: International Reference Ionosphere: Improvement, Validation and Usage - Part 4

Session Chairs: Ivan Galkin, *University of Massachusetts, United States*

Session Conveners: Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak

08:30 - 08:50

Fr-G04-AM-04-1 Improved Global Detection of Sporadic E Layers derived from GNSS Radio Occultation Data (Invited)

Christina Arras (1, 2); Tommaso LoPresti (2); Sahar Sobhkhiz Miandehi (2); Petra Koucka Knizova (3); Jens Wickert (2)

(1) *TU Berlin (Germany)*; (2) *GFZ German Research Centre for Geosciences (Germany)*; (3) *Institute of Atmospheric Physics of the Czech Academy of Sciences (Czech Republic)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/XVZJ5052>

08:50 - 09:10

Fr-G04-AM-04-2 Comparison of Sporadic-E occurrences using COSMIC-1 and Ionosone data in low-latitude region

Pornchai Supnithi (1); Gleb Mutasov (1); Lin Myint (1); Jirapoom Budtho (1); Septi Perwitasari (2)

(1) *King Mongkut's Institute of Technology Ladkrabang (Thailand)*; (2) *National Institute of Information and Communications Technology (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UXGF9023>

09:10 - 09:30

- Fr-G04-AM-04-3 Investigating D-Region Absorption Correlations with Ionogram fmin**
Austin Egert (1); Scott Thaller (1); Ian Collett (1); Camella-Rosa Nasr (1); Federico Gasperini (1)
(1) *Orion Space Solutions (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/GMXL6984>

Room H

HJ-1: Radio observations and diagnostics for the Sun, heliosphere and space weather - Part 1

Session Chairs: Natchimuthuk Gopalswamy, NASA Goddard Space Flight Center, United States
Session Conveners: Mauro Messerotti, Pietro Zucca, Yihua Yan, Natchimuthuk Gopalswamy, Divya Oberoi

09:30 - 09:50

- Fr-HJ-AM-04-1 Solar Radio Bursts from MUSER Imaging-Spectroscopic Observations**
Yihua Yan (1); Wei Wang (1); Linjie Chen (1); Chengming Tan (1); Suli Ma (1); Zhichao Zhou (1)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/NQJY1772>

09:50 - 10:10

- Fr-HJ-AM-04-2 Instrument Calibration for Chinese IPS telescope**
Wei Wang (1); Yihua Yan (1); Ming Xiogn (1); Jin Fan (1); Cang Su (1); Junhui Peng (2); Nan Jiang (3)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*; (2) *Chongqing University (China)*; (3) *Hangzhou Dianzi University (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FZWN3896>

Room J1

J03-1: Radio Astronomy from Space: Science, Technology and Future Missions - Part 1

Session Chairs: Yuri Kovalev, Max Planck Institute for Radio Astronomy, Germany; Cristina Garcia-Miro, National Astronomical Observatory, Spain
Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

09:30 - 09:50

- Fr-J03-AM-04-1 RadioAstron survey of active galaxies at unprecedented angular resolution**
Yuri Kovalev (1)
(1) *Max-Planck-Institut für Radioastronomie (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/RNLD6083>

09:50 - 10:10

- Fr-J03-AM-04-2 Lunar Orbital VLBI Experiment**
Xiaoyu Hong (1)
(1) *Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VWJP7926>

Room J2

JA-1: Precision timing and synchronisation - Part 1

Session Chairs: Brent Carlson, National Research Council Canada, Canada; Carlo Carobbi, Università degli Studi di Firenze, Italy; William Shillue, National Radio Astronomy Observatory, United States

Session Conveners: Brent Carlson, Carlo Carobbi, Bill Shillue

08:30 - 08:50

Fr-JA-AM-04-1 Frequency Transfer and Timing for the Atacama Large Millimeter/Submillimeter Array

Bill Shillue (1)

(1) National Radio Astronomy Observatory (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SSMQ9703>

08:50 - 09:10

Fr-JA-AM-04-2 Fiber-Optic Frequency and Time Distribution for Precision Timing and Synchronization in ESA's ESTRACK Network

Kemal Shafak (1); Anan Dai (1); Michael Hagemann (1); Erwin Cano Vargas (1); Meike Vocke (1); Theia El Sharkawy (1); Franz X. Kärtner (1); Sinda Mejri (2)

(1) Cycle GmbH (Germany); (2) European Space Agency (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/OWSV8558>

09:10 - 09:30

Fr-JA-AM-04-3 The SKA-MID Frequency Distribution System: System Overview and Current Status

Michael Kriele (1); Edward Gluszek (1); Neethu Thomas (1); Jeremy Martin (1); Sascha Schediwy (1)

(1) University of Western Australia (Australia)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UCOM4714>

Link to recording: <https://cloud.ilabt.imec.be/index.php/s/nwplLiPWY4xFs9N>

Starting time between 08:00 - 09:29

Room B2

B10-3: Machine learning and optimization techniques in electromagnetics: new trends and novel applications - Part 3

Session Chairs: Sembiam R. Rengarajan, California State University Northridge, United States; Ahmad Hoorfar, Villanova University, United States

Session Conveners: Sembiam R. Rengarajan, Christos G. Christodoulou, Ahmad Hoorfar

08:50 - 09:10

Fr-B10-AM-06-1 Machine Learning-Assisted Prediction of Spherical Harmonics and Application to the Synthesis of Accurate MIMO Radar Patterns

Nehir Berk Onat (1); Tworit Dash (1); Alexander Yarovoy (1); Yanki Aslan (1)

(1) Delft University of Technology (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IQPH7292>

09:10 - 09:30

Fr-B10-AM-06-2 Contrast-Source-Based Physics-Driven Neural Network for Inverse Scattering Problems

Yutong Du (1); Zicheng Liu (1)

(1) School of Electronics and Information, Northwestern Polytechnical University (China)

Link to paper: <https://doi.org/10.46620/26-0011>

Room C

C18: Integrated communications and navigation for Connected Cooperative and Automated Mobility (CCAM)

Session Chairs: Fortunato Santucci, University of L'Aquila, Italy; Francesco Valentini, Radiolabs, Italy; Elena Cinque, Radiolabs, Italy

Session Conveners: Fortunato Santucci, Francesco Valentini, Elena Cinque

08:50 - 09:10

Fr-C18-AM-06-1 A preliminary evaluation of 5G performance for cooperative vehicle manoeuvres (Invited)

Yuri Stangherlin (1, 2); Andrea Rofini (2); Marco Pratesi (1); Francesco Valentini (2); Elena Cinque (2)

(1) University of L'Aquila (Italy); (2) Radiolabs (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WQHC1331>

09:10 - 09:30

Fr-C18-AM-06-2 Indoor 60 GHz Radio Channel Dataset Enabling Digital Twin Construction

Davide Scazzoli (1); Daniele De Santis (1); Francesco Linsalata (1); Fortunato Santucci (2); Maurizio Magarini (1); Umberto Spagnolini (1)

(1) Politecnico di Milano (Italy); (2) University of L'Aquila (Italy); (1) Politecnico di Milano (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HDCD1935>

09:30 - 09:50

Fr-C18-AM-06-3 Performance Characterization of Software-Defined Radio Platforms for Integrated Communication and Navigation in CCAM

Roberto Alesii (1); Gianmarco Torto (1); Davide Scazzoli (2)

(1) University of L'Aquila (Italy); (2) Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/JPVL9776>

09:50 - 10:10

Fr-C18-AM-06-4 Open Challenges in Communications and Positioning for Connected and Automated Vehicles (Invited)

Elena Cinque (1); Piergiuseppe Di Marco (2); Lyudmila Mihaylova (3); Ivan Petrunin (4); Ali Raza (5); Chandni Saha (4); Fortunato Santucci (2); Aditya M. Shrikhande (3); Francesco Valentini (1)

(1) Radiolabs (Italy); (2) University of L'Aquila (Italy); (3) University of Sheffield (United Kingdom); (4) Cranfield University (United Kingdom); (5) Viasat (United Kingdom); (4) Cranfield University (United Kingdom); (2) University of L'Aquila (Italy); (3) University of Sheffield (United Kingdom); (1) Radiolabs (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SSSY5824>

Room E

B18-1: Antennas, Propagation, and RF Systems for Vehicular and Automotive Communications - Part 1

Session Chairs: Daniel Aloï; Andrea Michel, University of Pisa, Italy

Session Conveners: Daniel Aloï, Andrea Michel

08:50 - 09:10

Fr-B18-AM-06-1 A mm-Wave Vehicular Antenna for 5G Terrestrial Network

Hazrat Bilal (1); Andrea Michel (1); Enrico Toniolo (2); Stefano Mortello (2); Paolo Nepa (1)

(1) University of Pisa (Italy); (2) MTA Antenne (Italy); (1) University of Pisa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CTCO9217>

09:10 - 09:30

Fr-B18-AM-06-2 Design and Simulation of Passive Wideband Localization with Uniform Circular Array

Samiha Sammani Sani (1); Mingwei Qin (1); Samiha Sammani Sani (1)
(1) Southwest University of Science and Technology (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/NTVT1889>

Starting time between 08:00 - 09:29

Room K

K14: Open Session

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kun Li, The University of Electro-Communications, Japan

Session Conveners: Francesca Apollonio, Lars Ole-Fichte, Emily Porter, Kun Li

09:10 - 09:30

Fr-K14-AM-08-1 An Affordable SDR-Based Automatic RF Component Analyzer

Alessandro Andrea Vogrig (1); Matteo Oldoni (1)
(1) Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/XHRV1436>

Starting time between 09:30 - 10:29

Room B2

B10-4: Machine learning and optimization techniques in electromagnetics: new trends and novel applications - Part 4

Session Chairs: Sembiam R. Rengarajan, California State University Northridge, United States; Ahmad Hoorfar, Villanova University, United States

Session Conveners: Sembiam R. Rengarajan, Christos G. Christodoulou, Ahmad Hoorfar

09:30 - 09:50

Fr-B10-AM-10-1 The Ways of the Sith: A Master-Apprentice Dual-Agent Optimization Algorithm

Eleonora Lorenza Zich (1); Gabriel Felipe Martinez (1); Riccardo Zich (1); Francesco Pace Napoleone (3); Nikolai Simonov (4)
(1) Politecnico di Milano (Italy); (2) Università di Torino (Italy); (3) Université de Toulouse (France); (4) University of Pisa (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/QHYE7681>

09:50 - 10:10

Fr-B10-AM-10-2 Warring States Period Particle Swarm Optimization Applied for Microstrip Filter Design

Filippo Chiaudani (1); Giulio Franceschini (1); Alessandro Barbieri (1); Gabriel F. Martinez (1); Riccardo E Zich (1)
(1) Politecnico di Milano (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/ISIG6384>

Room D

HG2-2: Active Experiments in Space Plasmas - Part 2

Session Chairs: Robert Moore, University of Florida, United States; Mark Golkowski, University of Colorado Denver, United States

Session Conveners: Robert Moore, Mark Golkowski

09:30 - 09:50

Fr-HG2-AM-10-1 Field-Aligned Plasma Structures Resulting from HAARP HF Experiments Using a Twisted-Beam (Invited)

Chynna Spitler (1); Amani Reddy (1); Paul Bernhardt (1); Mike McCarrick (1)

(1) Geophysical Institute, University of Alaska Fairbanks (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BCPE1770>

09:50 - 10:10

Fr-HG2-AM-10-2 A New Approach to Whistler Mode Wave Research Using an HF Heater Generated ELF/VLF Waves, Ducts, and Small-Scale Field-Aligned Irregularities

Vikas Sonwalkar (1); Amani Reddy (2); Brenton Watkins (2)

(1) University of Alaska (United States); (2) Geophysical Institute, University of Alaska Fairbanks (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KBWC6994>

Room E

B18-2: Antennas, Propagation, and RF Systems for Vehicular and Automotive Communications - Part 2

Session Chairs: Daniel Aloï; Andrea Michel, University of Pisa, Italy

Session Conveners: Daniel Aloï, Andrea Michel

09:30 - 09:50

Fr-B18-AM-10-1 Discrete Full-Wave Rectenna for Wireless Power Transfer at 94GHz

Motti Haridim (1); Lidor Dahan (2); Boris Litvak (2); Oz Livne (2); Vladimir Freydin (2); Yosef Pinhasi (2)

(1) HIT (Israel); (2) Ariel University (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HKHS9124>

09:50 - 10:10

Fr-B18-AM-10-2 Isolation Enhancement in a Compact Automotive MIMO Module Using Lumped-Element Loaded Nested SRRs

Rajesh Kumar Singh (1); Atuliya Sabu (1); Andrea Michel (2)

(1) DIAT (India); (2) Department of Information Engineering, University of Pisa (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LOIW5608>

Room F

F06: Wave Propagation and Remote Sensing: Historical Perspectives and Insights

Session Chairs: Animesh Maitra, University of Calcutta, India; Simonetta Paloscia, CNR-IFAC, Italy

Session Conveners: Animesh Maitra, Madhu Chandra

09:30 - 09:50

Fr-F06-AM-10-1 S. K. Mitra and the Origins of Atmospheric Remote Sensing: From Ionospheric Radio Studies to Probing the Atmosphere (Invited)

Animesh Maitra (1); P K Basu (1)

(1) Institute of Radio Physics and Electronics, University of Calcutta (India)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WZHV4385>

09:50 - 10:10

- Fr-F06-AM-10-2 Evolution of the Virtual Array Channel Sounder**
David Michelson (1); Xin Chen (1)
(1) *University of British Columbia (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CAMZ6491>

Room G1

G13-6: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 6

- Session Chairs:* Vincenzo Romano, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Iwona Stanislawska, *Centrum Badan Kosmicznych PAN, Poland*; Anthea Coster, *MIT Haystack Observatory, United States*
Session Conveners: Vincenzo Romano, Iwona Stanislawska, Anthea Coster

09:30 - 09:50

- Fr-G13-AM-10-1 Moment-Hierarchy GNSS Phase Descriptors from 1 Hz Data: Separating Geomagnetic Storm Impacts from Jamming/RFI in Greenland**
Sarah Beeck (1); Tibor Durgonics (1)
(1) *Technical University of Denmark (Denmark)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MQFC4481>

Room G2

G04-5: International Reference Ionosphere: Improvement, Validation and Usage - Part 5

- Session Chairs:* Ivan Galkin, *University of Massachusetts, United States*
Session Conveners: Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak

09:30 - 09:50

- Fr-G04-AM-10-1 Climatological TEC Mapping for GAMBIT, GNSS-Driven Ionosphere Nowcasts, and Auroral Oval Assimilation in the IGS-IRI Cooperation (Invited)**
Adam Froń (1); Ningbo Wang (2); Andrzej Krankowski (1); Manuel Hernández-Pajares (3); Zishen Li (2); Ivan Galkin (4); Dieter Bilitza (5); Iurii Cherniak (1); Irina Zakharenkova (1); Runqing Liu (2)
(1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *Chinese Academy of Sciences (China)*; (1) *University of Warmia and Mazury in Olsztyn (Poland)*; (3) *Universitat Politècnica de Catalunya (Spain)*; (2) *Chinese Academy of Sciences (China)*; (4) *University of Massachusetts (United States)*; (5) *George Mason University (United States)*; (1) *University of Warmia and Mazury in Olsztyn (Poland)*; (2) *Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/PIBA5767>

09:50 - 10:10

- Fr-G04-AM-10-2 TEC Analysis Using a Low-Cost GNSS Receiver During Ionospheric and Disturbed periods at Low-latitude Stations (Invited)**
Pornchai Supnithi (1); Lin Myint (1); Jirapoom Budtho (1); Bhim Bahadur Rana (1); Alisa Kongthon (2)
(1) *King Mongkut's Institute of Technology Ladkrabang (Thailand)*; (2) *King Mongkut's University of Technology Thonburi (Thailand)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/TPYJ1593>

Room H

HJ-2: Radio observations and diagnostics for the Sun, heliosphere and space weather - Part 2

Session Chairs: Natchimuthuk Gopalswamy, NASA Goddard Space Flight Center, United States

Session Conveners: Mauro Messerotti, Pietro Zucca, Yihua Yan, Natchimuthuk Gopalswamy, Divya Oberoi

10:30 - 10:50

Fr-HJ-AM-10-1 Reaching the Shadowed Equator: Propagation of Radio Emissions in Planetary Magnetospheres

Siyuan Wu (1); Daniel Whiter (1)

(1) University of Southampton (United Kingdom)

Link to paper: <https://doi.org/10.46620/26-0090>

10:50 - 11:10

Fr-HJ-AM-10-2 Observing and Simulation Approaches of Solar Radio Shadowing Effects in Mingantu Observing Station

Lihong Geng (1); Chengming Tan (1); Wei Wang (1); Cang Su (2); Sha Li (2); Lijie Chen (2); Yihua Yan (2); Donghao Liu (3); Jun Cheng (2); Zhichao Zhou (2)

(1) National Centre for Space Science, Chinese Academy of Sciences (China); (2) National Space Science Center, Chinese Academy of Sciences (China); (3) National Astronomical Observatories, Chinese Academy of Sciences (China); (2) National Space Science Center, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VXSM7744>

Room J1

J03-2: Radio Astronomy from Space: Science, Technology and Future Missions - Part 2

Session Chairs: Yuri Kovalev, Max Planck Institute for Radio Astronomy, Germany; Cristina Garcia-Miro, National Astronomical Observatory, Spain

Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

08:30 - 08:50

Fr-J03-AM-10-1 21-cm Cosmology at Cosmic Dawn and Dark Ages (Invited)

Anastasia Fialkov (1)

(1) University of Cambridge (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/IJRQ3291>

08:50 - 09:10

Fr-J03-AM-10-2 What have we learned from the first black hole images? (Invited)

Andrew Chael (1, 2)

(1) Niels Bohr Institute, University of Copenhagen (Denmark); (2) Princeton Gravity Initiative (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WEOW7867>

09:10 - 09:30

Fr-J03-AM-10-3 Inevitability, expectations and challenges of millimeter and sub-mm VLBI in space (Invited)

Leonid Gurvits (1)

(1) Delft University of Technology (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NDGZ1391>

Room J2

JA-2: Precision timing and synchronisation - Part 2

Session Chairs: Brent Carlson, National Research Council Canada, Canada; Carlo Carobbi, Università degli Studi di Firenze, Italy; William Shillue, National Radio Astronomy Observatory, United States

Session Conveners: Brent Carlson, Carlo Carobbi, Bill Shillue

09:30 - 09:50

Fr-JA-AM-10-1 ngVLA Timing and Synchronization

Bill Shillue (1); Hitoshi Kiuchi (2)
(1) National Radio Astronomy Observatory (United States); (2) National Astronomical Observatory of Japan (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ASNP8206>

09:50 - 10:10

Fr-JA-AM-10-2 Report on LOKI digital clock and timing research: current results, lessons learned, and next steps

Brent Carlson (1)
(1) National Research Council Canada (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/VFGF7013>

Room K

KA-2: Methods and novel technologies for absorbed/epithelial power density assessment above 6 GHz - Part 2

Session Chairs: Francesca Apollonio, Sapienza University of Rome, Italy; Kun Li, The University of Electro-Communications, Japan

Session Conveners: Maxim Zhadobov, Paulraj Rajamani, Amitava Sen Gupta, Francesca Apollonio

09:30 - 09:50

Fr-KA-AM-10-1 Impact of Skin Geometry on Electromagnetic Fields Distribution at 26 GHz

Alessandra Conforti (1); Noemi Dolciotti (1); Micol Colella (1); Ilaria Barbieri (1); Francesca Apollonio (1); Micaela Liberti (1)
(1) IEmB DIET - Sapienza University of Rome (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LVOR8484>

09:50 - 10:10

Fr-KA-AM-10-2 Variability of Absorbed Power Density at 26 and 60 GHz: Effects of Age, Skin Temperature, and Clothing

Mariam Mafamane (1); Giulia Sacco (1); Artem Boriskin (2); Maxim Zhadobov (1)
(1) IETR/CNRS UMR 6164 (France); (2) WVELIS (France); (1) IETR/CNRS UMR 6164 (France)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FLHK8751>

Starting time between 09:30 - 10:29

Room B1

B05-4: Propagation and scattering: advances, trends and new applications - Part 4

Session Chairs: Guido Lombardi, Politecnico di Torino, Italy; Cristina Ponti, Roma Tre University, Italy

Session Conveners: Danilo Erricolo, Thomas Kuerner, Guido Lombardi

09:50 - 10:10

Fr-B05-AM-12-1 The Study of the Rough Dielectric Surface by Improved IPO

Yinyu Wei (1); Yifeng He (1); Xiaosong Zheng (1)

(1) Xi'an Institute of Space Radio Technology (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/DIMG5810>

Starting time between 10:30 - 11:29

Room B1

B08-3: Mathematical modelling of EM problems - Part 3

Session Chairs: Paul Smith, Macquarie University, Australia; Piergiorgio L. E. Uslenghi, University of Illinois Chicago, United States

Session Conveners: Paul Smith, George Uslenghi

10:30 - 10:50

Fr-B08-AM-16-1 Transmission Lines with Time-Varying Nonuniform Parameters

Piergiorgio L. E. Uslenghi (1)

(1) University of Illinois Chicago (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LGTL6555>

10:50 - 11:10

Fr-B08-AM-16-2 Waveguide Simulator Analysis of an Infinite Array of Dielectric-Loaded Slots in a Finite Thickness Metallic Screen

Abdulaziz Haddab (1)

(1) Abdullah Al Salem University (Kuwait)

Link to paper: <https://doi.org/10.46620/URSIGASS26/GATU8737>

11:10 - 11:30

Fr-B08-AM-16-3 Phase-space Design of Pulsed Light Structures (Invited)

Timor Melamed (1)

(1) Ben Gurion University of the Negev (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/LQSZ4520>

Room B2

B10-5: Machine learning and optimization techniques in electromagnetics: new trends and novel applications - Part 5

Session Chairs: Sembiam R. Rengarajan, California State University Northridge, United States; Ahmad Hoorfar, Villanova University, United States

Session Conveners: Sembiam R. Rengarajan, Christos G. Christodoulou, Ahmad Hoorfar

10:30 - 10:50

Fr-B10-AM-16-1 Recent Developments on the Application of Deep Neural Network for Direction of Arrival Estimation in Antenna Arrays

Hrisikesh Roy (1); Taimoor Khan (1); Md Maqbul (1); Sembiam R. Rengarajan (2)

(1) National Institute of Technology Silchar (India); (2) California State University Northridge (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/UBZR5055>

10:50 - 11:10

- Fr-B10-AM-16-2 Agentic System for Autonomous Electromagnetic Research**
Willie Padilla (1); Darui Lu (1); Jordan Malof (2)
(1) Duke University (United States); (2) University of Missouri (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/BCUO4549>

Room C

CAK: Bio-Sensors and Radar Technologies for Advanced Biomedical Applications

- Session Chairs:* Ajeet Kumar, National Laboratory of CNIT, Italy; Ilona Piekarz, AGH University of Krakow, Poland; Francesca Apollonio, Sapienza University of Rome, Italy
Session Conveners: Ajeet Kumar, Ilona Piekarz, Francesca Apollonio

10:30 - 10:50

- Fr-CAK-AM-16-1 Compact Implantable Antenna Design for Arteriovenous Grafts**
Shaik Mahaboob Subhani (1); Anil Kumar Nayak (1); Ajeet Kumar (2)
(1) VIT AP University (India); (2) CNIT (National Inter-University Consortium for Telecommunications) (Italy)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IOIN6143>

Room D

HG2-3: Active Experiments in Space Plasmas - Part 3

- Session Chairs:* Robert Moore, University of Florida, United States; Mark Golkowski, University of Colorado Denver, United States
Session Conveners: Robert Moore, Mark Golkowski

10:30 - 10:50

- Fr-HG2-AM-16-1 Lower Ionosphere Electron Density Determination using ELF/VLF Waves Generated by the HAARP Ionospheric Heating Facility**
Mark Golkowski (1); Gabriel Da Silva (1); Alexander Sandersfeld (1); Kshama Tiwari (1); Richard McCoy (2); Robert Moore (2)
(1) University of Colorado Denver (United States); (2) University of Florida (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CHJJ8707>

10:50 - 11:10

- Fr-HG2-AM-16-2 Properties of the Auroral Electrojet Discerned from ELF/VLF Wave Generation Experiments at HAARP**
Robert Moore (1)
(1) University of Florida (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/URIG8923>

11:10 - 11:30

- Fr-HG2-AM-16-3 Radio Wave Polarization from Scattering Regions with Different Geometric Properties**
James Camp (1); Robert Moore (1)
(1) University of Florida (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JYGS5441>

Room E

B17: Novel fabrication techniques for next generation millimeter-wave and terahertz antennas and circuits

Session Chairs: [Elias A. Alwan, Florida International University, United States](#); [Satheesh Bojja Venkatakrishnan, Florida International University, United States](#)

Session Conveners: [Elias Alwan, Satheesh Bojja Venkatakrishnan](#)

10:30 - 10:50

Fr-B17-AM-16-1 A Quad-Band Shared-Aperture Antenna Integrating Dual-Feed Sub-6-GHz Patches and a Dual-Resonant mmWave Element (Invited)

Md Nur Alam (1); Elias A. Alwan (1)

(1) *Florida International University (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/GQIO3698](https://doi.org/10.46620/URSIGASS26/GQIO3698)

10:50 - 11:10

Fr-B17-AM-16-2 Fabrication Challenges and Design Strategies for Ultrawideband mm-Wave and THz Antennas and Circuits

Satheesh Bojja Venkatakrishnan (1); John Volakis (1)

(1) *Florida International University (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/SDMW3620](https://doi.org/10.46620/URSIGASS26/SDMW3620)

Room F

FG-1: Innovations in Space Surveillance and Environmental Interaction - Part 1

Session Chairs: [Liliana Macotela, Norwegian Research Centre, Norway](#); [Austin Egert, Orion Space Solutions, United States](#)

Session Conveners: [Liliana Macotela, Austin Egert, Sari Lasanen, Tom Grydeland](#)

10:30 - 10:50

Fr-FG-AM-16-1 Constellation Observation from a Space-based Platform using Sub-THz Inverse Synthetic Aperture Radar (ISAR) (Invited)

Gruffudd Jones (1); Morgan Coe (1); Theo Hart (1); Leah-Nani Alconcel (1); Marina Gashinova (1)

(1) *University of Birmingham (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/AOTH8669](https://doi.org/10.46620/URSIGASS26/AOTH8669)

10:50 - 11:10

Fr-FG-AM-16-2 Space Domain Awareness Observations Made With A VHF Wind Profiling Radar

Reid Iain (1); Bronwyn Dolman (1)

(1) *ATRAD Pty Ltd (Australia)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/HSSZ7266](https://doi.org/10.46620/URSIGASS26/HSSZ7266)

11:10 - 11:30

Fr-FG-AM-16-3 Tracking Space Debris Using EISCAT Radar Observations

Liliana Macotela (1); Daniel Kastinen (2); Magnus Andersson (1); Tom Grydeland (1); Stian N Anfinson (1); Ingar Arntzen (1); Daniel Trosten (1); Robert Ricker (1); Johan Kero (2); Tomi Teppo (3); Sari Lasanen (3)

(1) *Norwegian Research Centre (Norway)*; (2) *Swedish Institute of Space Physics (Sweden)*;

(1) *Norwegian Research Centre (Norway)*; (2) *Swedish Institute of Space Physics (Sweden)*;

(3) *University of Oulu (Finland)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/XQWL1456](https://doi.org/10.46620/URSIGASS26/XQWL1456)

Room G1

G13-7: Ionospheric Space Weather: From Scientific Understanding to Operational Services - Part 7

Session Chairs: Vincenzo Romano, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*; Iwona Stanislawska, *Centrum Badan Kosmicznych PAN, Poland*; Anthea Coster, *MIT Haystack Observatory, United States*

Session Conveners: Vincenzo Romano, Iwona Stanislawska, Anthea Coster

10:30 - 10:50

Fr-G13-AM-16-1 Ionospheric Gradients and GPS Positioning Errors During the May 2024 Geomagnetic Storm

Teddy Surco Espejo (1); Keith Groves (1); Anthea Coster (2)
(1) *Boston College (United States)*; (2) *MIT Haystack Observatory (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MNOU5786>

10:50 - 11:10

Fr-G13-AM-16-2 Effect of Ionospheric Spatial Gradient and Irregularities on Differential GNSS Positioning

Jinghua LI (1); Guanyi Ma (1); Jiangtao FAN (1); Qingtao WAN (1)
(1) *National Astronomical Observatories, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IARX7643>

Room G2

G04-6: International Reference Ionosphere: Improvement, Validation and Usage - Part 6

Session Chairs: David Themens, *University of Birmingham, United Kingdom*

Session Conveners: Dieter Bilitza, Vladimir Truhlik, Andrzej Krankowski, Young-Sil Kwak

10:30 - 10:50

Fr-G04-AM-16-1 Quantifying Long-Term Mass Loss of the Earth's Plasmasphere

Shigeto Watanabe (1)
(1) *Hokkaido University (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/KAHT9493>

Room H

HJ-3: Radio observations and diagnostics for the Sun, heliosphere and space weather - Part 3

Session Chairs: Yihua Yan, *National Space Science Center, Chinese Academy of Sciences, China*

Session Conveners: Mauro Messerotti, Pietro Zucca, Yihua Yan, Natchimuthuk Gopalswamy, Divya Oberoi

13:40 - 14:00

Fr-HJ-AM-16-1 Successive Decimeter Bursts beneath a Pseudostreamer in the Decay Phase of an M-Class Flare

Suli Ma (1); Yihua Yan (1); Wei Wang (1); Hamish Reid (2); Huadong Chen (3); Ting Li (1); Zhichao Zhou (1); Jing Hang (3); Xingyao Chen (1); Chengming Tan (1); Minghui Zhang (1); Xiaoshuai Zhu (1)
(1) *National Space Science Center, Chinese Academy of Sciences (China)*; (2) *University College London (United Kingdom)*; (3) *National Astronomical Observatories, Chinese Academy of Sciences (China)*; (1) *National Space Science Center, Chinese Academy of Sciences (China)*; (3) *National Astronomical Observatories, Chinese Academy of Sciences (China)*; (1) *National Space Science Center, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CSMO4376>

14:00 - 14:20

- Fr-HJ-AM-16-2 Tracking CMEs with MWA IPS Observations**
Angie Waszewski (1, 2); John Morgan (2); Mark Cheung (3); Hannah Schunker (1); David Pontin (1)
(1) *University of Newcastle (Australia)*; (2) *CSIRO (Australia)*; (3) *CSIRO (Australia)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/GGVJ3540>

14:20 - 14:40

- Fr-HJ-AM-16-3 Evolution of coronal turbulence during an M class solar flare**
Christian Vocks (1)
(1) *Leibniz-Institute for Astrophysics Potsdam (AIP) (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OGUT2843>

Room J1

J03-3: Radio Astronomy from Space: Science, Technology and Future Missions - Part 3

- Session Chairs:* Yuri Kovalev, *Max Planck Institute for Radio Astronomy, Germany*; Cristina Garcia-Miro, *National Astronomical Observatory, Spain*
Session Conveners: Yuri Kovalev, *Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio*

10:30 - 10:50

- Fr-J03-AM-16-1 The Lunar Surface Electromagnetics Experiment: LuSEE-Night (Invited)**
Stuart Bale (1)
(1) *University of California, Berkeley (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QVCP5641>

10:50 - 11:10

- Fr-J03-AM-16-2 The Sun Radio Interferometer Space Experiment (SunRISE): Mission Updates and Launch Planning (Invited)**
Susan Lepri (1); Joseph Lazio (1); Benjamin Setterholm (2); Noura Ibrahim (1); Andrew Romero-Wolf (3); James Lux (4); Tim Neilsen (5); Lynn Wilson III (6); Cole Heckathorn (1); Christina Cohen (7); Nathan Schwadron (8); Justin Kasper (1)
(1) *The University of Michigan (United States)*; (2) *Max Planck Institute for Astronomy (Germany)*; (1) *The University of Michigan (United States)*; (3) *University of Hawaii at Manoa (United States)*; (4) *Jet Propulsion Laboratory, California Institute of Technology (United States)*; (5) *Space Dynamics Laboratory (United States)*; (6) *NASA Goddard Space Flight Center (United States)*; (1) *The University of Michigan (United States)*; (7) *California Institute of Technology (United States)*; (8) *University of New Hampshire (United States)*; (1) *The University of Michigan (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/MFAM8916>

11:10 - 11:30

- Fr-J03-AM-16-3 The Discovering Sky at the Longest wavelength Mission (Invited)**
Xuelei Chen (1)
(1) *National Astronomical Observatories, Chinese Academy of Sciences (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/ULZY7004>

Room J2

JAC-1: Cosmological HI: observations and precision calibration - Part 1

Session Chairs: Xuelei Chen, National Astronomical Observatories of CAS, China; Demetrios Matsakis, Masterclock, Inc., United States

Session Conveners: Abhirup Datta, Xuelei Chen, Demetrios Matsakis, Kumar Vijay Mishra

10:30 - 10:50

- Fr-JAC-AM-16-1 SARAS upgrades towards precision 21-cm measurement from high redshifts**
Saurabh Singh (1); Yash Agrawal (1); Girish B.S. (1); Srivani K.S. (1); Somashekar R. (1); Vishakha S. Pandharpure (1); Adarsh Kumar Dash (1); Jayadev Ashok Thiyyannoor (1); Amarnath (1); Gopi Patel (1)
(1) Raman Research Institute (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/TWHB3489>

10:50 - 11:10

- Fr-JAC-AM-16-2 A lunar orbit 21cm global spectrum experiment (Invited)**
Xuelei Chen (1); Fengquan Wu (1)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KJCD5750>

11:10 - 11:30

- Fr-JAC-AM-16-3 Radio observations at ultra low frequency from space (Invited)**
Abhirup Datta (1)
(1) Indian Institution of Technology Indore (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LTFI2958>

Room K

KB: Electromagnetic Biomedical Imaging

Session Chairs: Raquel Conceicao Cruz, Universidade de Lisboa, Portugal; Mario Phaneuf, University of Manitoba, Canada

Session Conveners: Puyan Mojabi, Raquel Cruz Conceição, Shouhei Kidera

10:30 - 10:50

- Fr-KB-AM-16-1 Investigation of a new multi-trace boundary element formulation with a complete electrode model for the electrical impedance tomography problem**
Paula M. Respondek (1); Simon B. Adrian (1)
(1) Universität Rostock (Germany)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SMAU4367>

10:50 - 11:10

- Fr-KB-AM-16-2 Contactless Monostatic Microwave Imaging using Narrowband Dipole Antennas**
Nicholas Conrad (1); Iman Farhat (1); Julian Bonello (1); Lourdes Farrugia (1); Evan Dimech (1)
(1) University of Malta (Malta)
Link to paper: <https://doi.org/10.46620/26-0017>

11:10 - 11:30

- Fr-KB-AM-16-3 Detecting Burn Injuries Using Novel Resonant Signature Mapping based Microwave Imaging**
Smriti Rani (1); Anwesha Khasnobish (1); Soumya Chakravarty (1, 2); Mohd Jaleel Akhtar (2)
(1) TCS Research (India); (2) IIT Kanpur (India)
Link to paper: <https://doi.org/10.46620/26-0084>

Starting time between 10:30 - 11:29

Room C

CB: Smart radio environments and RIS

Session Chairs: Kumar Vijay Mishra, University of Maryland, United States; Alberto Tarable, National Research Council, Italy; Filippo Costa, Department of Information Engineering, University of Pisa, Italy

Session Conveners: Kumar Vijay Mishra, Alberto Tarable, Filippo Costa, Fu Liu

10:50 - 11:10

Fr-CB-AM-18-1 IRS optimization for wideband beamforming/beamfocusing

Alessandro Nordio (1); Alberto Tarable (1); Francisco Escribano (2)
(1) National Research Council (Italy); (2) University of Alcala (Spain)
Link to paper: <https://doi.org/10.46620/URSIGASS26/WLCX5274>

Room G2

IRI: IRI Working Group business meeting

Session Chairs: Dieter Bilitza, George Mason University, United States

Starting time between 10:30 - 11:29

Room C

CD: Wireless Power Technologies

Session Chairs: Satoshi Tsukamoto, Tohoku University, Japan; Valentina Palazzi, University of Perugia, Italy; Giacomo Paolini, University of Bologna, Italy

Session Conveners: Satoshi Tsukamoto, Yves Louet, Valentina Palazzi, Giacomo Paolini

11:10 - 11:30

Fr-CD-AM-20-1 WPT Systems for Moving Machines

Kunihiko Sasaki (1); Atsushi Kanno (1)
(1) Nagoya Institute of Technology (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KBPE8697>

Starting time between 11:30 - 12:29

Room P

GL-3: General Lecture - Part 3

Session Chairs: Giuliano Manara, University of Pisa, Italy

Starting time between 13:30 - 14:39

Room A

G06-1: LEO topside and radio occultation measurements for ionosphere and plasmasphere estimation and modelling - Part 1

Session Chairs: Mohammed Mainul Hoque, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany; Riccardo Notarpietro, EUMETSAT, Germany; Manuel

Hernandez-Pajares, Universitat Politècnica de Catalunya, Spain; Marjolijn Adolfs, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany

Session Conveners: Mainul Hoque, Riccardo Notarpietro, Manuel Hernandez, Marjolijn Adolfs

13:40 - 14:00

Fr-G06-PM-05-1 GNSS Radio Occultation Observations of Ionospheric Scintillation: Limb Geometry, Localization, and Operational Implications (Invited)

Tibor Durgonics (1); Sarah Beeck (1)

(1) *Technical University of Denmark (Denmark)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/QTRM7108>

14:00 - 14:20

Fr-G06-PM-05-2 Electron density profiles at 1km resolution from GRAS-extension truncated GPS observations

Victoria Graffigna (1); Manuel Hernandez-Pajares (1); German Olivares-Pulido (1); Enric Monte-Moreno (1); Haixia Lyu (2); Estel Cardellach (3)

(1) *IonSAT Research Group, Polytechnic University of Catalonia (UPC) (Spain)*; (2) *Wuhan University (China)*; (3) *ICE/IEEC & CSIC (Spain)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DFPP1253>

14:20 - 14:40

Fr-G06-PM-05-3 Radio Occultation Observations of Ionospheric Space Weather by Using FORMOSAT-3/COSMIC and FORMOSAT-7/COSMIC-2

Jann-Yenq Liu (1)

(1) *National Central University (Taiwan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/OSUI3713>

Room B1

B08-4: Mathematical modelling of EM problems - Part 4

Session Chairs: Paul Smith, Macquarie University, Australia; Piergiorgio L. E. Uslenghi, University of Illinois Chicago, United States

Session Conveners: Paul Smith, George Uslenghi

13:40 - 14:00

Fr-B08-PM-05-1 Scattering from impedance loaded cavities: Abel integral transform approach

Paul Smith (1); Elena Vinogradova (1)

(1) *Macquarie University (Australia)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JUKD7505>

14:00 - 14:20

Fr-B08-PM-05-2 Electromagnetic Scattering by a Body of Revolution Inside a Rectangular Waveguide (Invited)

Ali Akgun (1); Stefan Eijssvogel (1); Bas P. de Hon (1); Martijn C. van Beurden (1)

(1) *TU/e (Netherlands)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/BZPB8598>

14:20 - 14:40

Fr-B08-PM-05-3 Rigorous Spectral Analysis of Single-Source Integral Equations on a Dielectric Sphere (Invited)

Martijn Huynen (1); Vladimir Okhmatovski (2); Daniël De Zutter (1); Dries Vande Ginste (1)

(1) *Ghent University (Belgium)*; (2) *University of Manitoba (Canada)*; (1) *Ghent University (Belgium)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YVEA4457>

Room B2

B16-1: Reconfigurable intelligent surfaces (RIS) and their applications - Part 1

Session Chairs: [Filippo Costa](#), *Department of Information Engineering, University of Pisa, Italy*; [Gabriele Gradoni](#), *University of Surrey, United Kingdom*

Session Conveners: [Filippo Costa](#), [Shuo Liu](#), [Lei Zhang](#)

13:40 - 14:00

Fr-B16-PM-05-1 A Sub-Array-Based Large-Aperture Reconfigurable Intelligent Surface With Enhanced Scattering Efficiency at 28 GHz

Po-Cheng Hsieh (1); Wei-Lun Hsu (1); Shih-Cheng Lin (1); Chia-Chan Chang (1)
(1) *National Chung Cheng University (Taiwan)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/QBDE7833](https://doi.org/10.46620/URSIGASS26/QBDE7833)

14:00 - 14:20

Fr-B16-PM-05-2 Highly Flexible and Energy Efficient Sub-THz Microfluidic Reconfigurable Intelligent Surface using Liquid Metal and Its Potential Integration with Lightweight Machine Learning (Invited)

Phan Duy Tung (1); Nguyen Tien Thinh (1); Korhonen Veikka (2); Kong Di (2); Nguyen Thanh Nhan (1); Juntti Markku (2); Soh Ping Jack (2)
(1) *Centre for Wireless Communications, University of Oulu (Finland)*; (2) *University of Oulu (Finland)*; (1) *Centre for Wireless Communications, University of Oulu (Finland)*; (2) *University of Oulu (Finland)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/WLSE5621](https://doi.org/10.46620/URSIGASS26/WLSE5621)

14:20 - 14:40

Fr-B16-PM-05-3 Enhancing Transmitarray Bandwidth at 300 GHz via Combined Spatial Point-Focusing and Far-Field Phase Profiles (Invited)

Yao Ze Marc ZHAN (1); David DEMMER (1); Antonio CLEMENTE (1)
(1) *CEA-Leti, Université Grenoble Alpes (France)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/BAEK9764](https://doi.org/10.46620/URSIGASS26/BAEK9764)

Room D

HG2-4: Active Experiments in Space Plasmas - Part 4

Session Chairs: [Robert Moore](#), *University of Florida, United States*; [Mark Golkowski](#), *University of Colorado Denver, United States*

Session Conveners: [Robert Moore](#), [Mark Golkowski](#)

13:40 - 14:00

Fr-HG2-PM-05-1 Periodic Steady-State HF Cross-Modulation Effects in the Lower Ionosphere

Harrison Burch (1); Robert Moore (1)
(1) *University of Florida (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/TTHM5144](https://doi.org/10.46620/URSIGASS26/TTHM5144)

14:00 - 14:20

Fr-HG2-PM-05-2 Artificial Optical Emissions at HAARP: Plasma Processes

Brenton Watkins (1); Spencer Kuo (2); Jeffrey Holmes (3)
(1) *Geophysical Institute, University of Alaska Fairbanks (United States)*; (2) *New York University (United States)*; (3) *Air Force Research Lab (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/SEYG2994](https://doi.org/10.46620/URSIGASS26/SEYG2994)

14:20 - 14:40

Fr-HG2-PM-05-3 First Laboratory Observations of Residual Energy Generation in Strong Alfvén Wave Interactions

Mel Ablar (1); Seth Dorfman (1); Christopher Chen (2)
(1) *Space Science Institute (United States)*; (2) *Queen Mary University of London (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/YOGU4271>

Room E

B19-1: Electromagnetics in various sensing applications - Part 1

Session Chairs: Artur Rydosz, AGH University of Krakow, Poland; Ilona Piekarz, AGH University of Krakow, Poland

Session Conveners: Artur Rydosz, Kamil Staszek, Ilona Piekarz

13:40 - 14:00

Fr-B19-PM-05-1 Passive UHF RFID as Opportunistic Electromagnetic Sensors: A Channel-Centric Approach to Human Activity Monitoring Using Temporal Machine Learning

Thibaud Bounhar (1); Arnaud Vena (1); Sophie Tron (2); Brice Sorli (1)
(1) *Institut d'Electronique et des Systèmes (France)*; (2) *GOTOIOT (France)*; (1) *Institut d'Electronique et des Systèmes (France)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JPOB1030>

14:00 - 14:20

Fr-B19-PM-05-2 An RFID-Based Self-Tuning Sensor for Monitoring Liquid Salinity in Smart Agriculture Application

Debi Dutta (1, 2); Simone Genovesi (1); Giuliano Manara (1); Filippo Costa (3)
(1) *Department of Information Engineering, University of Pisa (Italy)*; (2) *HCL Technologies Limited (India)*; (3) *University of Pisa (Italy)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/ZTLU6626>

14:20 - 14:40

Fr-B19-PM-05-3 Multiple Scattering Center Based Simplified Vehicular modeling for Integrated Sensing and Communication Systems

Karthik Subhash Jayasree (1)
(1) *Institute of Science Tokyo (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/MYDM3564>

Room F

FG-2: Innovations in Space Surveillance and Environmental Interaction - Part 2

Session Chairs: Austin Egert, Orion Space Solutions, United States; Liliana Macotela, Norwegian Research Centre, Norway

Session Conveners: Liliana Macotela, Austin Egert, Sari Lasanen, Tom Grydeland

13:40 - 14:00

Fr-FG-PM-05-1 Plasma Astrodynamics (PAD): Orbiting Objects and Transient Space Event Detection (Invited)

Paul Bernhardt (1); Bengt Eliasson (2); Andrew Howarth (3); Jeffrey Baumgardner (4); Samuel McKay (1)
(1) *University of Alaska (United States)*; (2) *University of Strathclyde (United Kingdom)*; (3) *University of Calgary (Canada)*; (4) *Boston University (United States)*; (1) *University of Alaska (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/UKYN8533>

14:00 - 14:20

- Fr-FG-PM-05-2 Resident Space Object generated plasma waves and their detection**
Scott Thaller (1); Ian Collett (1); Federico Gasperini (1); Cami Nasr (1); Raj Patel (1); Elijah Vance (1); Ethan McAleavy (1); Junk Wilson (1); Nathan Re (2); Ben Tatman (2); Yoshiya Kasahara (3); Shoya Matsuda (3); Fuminori Tsuchiya (4); Atsushi Kumamoto (4); Ayako Matsuoka (5); Mariko Teramoto (6); Tomo Hori (7); Iku Shinohara (8); Yoshizumi Miyoshi (7); Atsuki Shinbori (7); Kazuhiro Yamamoto (7)
(1) Orion Space Solutions (United States); (2) Advanced Space (United States); (3) Kanazawa University (Japan); (4) Tohoku University (Japan); (5) Kyoto University (Japan); (6) Kyushu Institute of Technology (Japan); (7) Nagoya University (Japan); (8) Japan Aerospace Exploration Agency (Japan); (7) Nagoya University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/YDCM5013>

14:20 - 14:40

- Fr-FG-PM-05-3 Detection of Debris-Induced Plasma Solitons and Wave Signatures Using Arase Burst Mode Observations**
Federico Gasperini (1); Thaller Scott (1); Ian Collett (1); Raj Patel (1); Junk Wilson (1); Nathan Re (2); Ben Tatman (2); Yoshiya KASAHARA (3); Shoya MATSUDA (3); Fuminori TSUCHIYA (4); Atsushi KUMAMOTO (4); Ayako MATSUOKA (5); Mariko Teramoto (6); Tomoaki HORI (7); Iku Shinohara (8); Yoshizumi Miyoshi (7); Atsuki Shinbori (7); Kazuhiro YAMAMOTO (7)
(1) Orion Space Solutions (United States); (2) Advanced Space (United States); (3) Kanazawa University (Japan); (4) Tohoku University (Japan); (5) Kyoto University (Japan); (6) Kyushu Institute of Technology (Japan); (7) Nagoya University (Japan); (8) Japan Aerospace Exploration Agency (Japan); (7) Nagoya University (Japan)
Link to paper: <https://doi.org/10.46620/URSIGASS26/DKUL1974>

Room G1

G11-1: HF Radar Applications: Modeling, Observations, Phenomenology, and Propagation - Part 1

Session Chairs: Dima Paznukhov, Boston College, United States; Hanna Rothkaehl, Space Research Center, PAS, Warsaw, Poland, Poland
Session Conveners: Dima Paznukhov, Joseph Malins, Kate Zawdie, Hanna Rothkaehl

13:40 - 14:00

- Fr-G11-PM-05-1 MIMO Over-the-Horizon Radar: Experimental Results with Mixed Waveforms and Hybrid Sub-Arrays**
Santiago Ozafrain (1, 2); Oliver Kirkpatrick (1, 2); Joshua Ruck (2); Christopher Gilliam (1); Beth Jelfs (1); Sean Elvidge (2)
(1) Microwave Integrated Systems Laboratory (MISL) - University of Birmingham (United Kingdom); (2) SERENE - University of Birmingham (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JXHX7231>

14:00 - 14:20

- Fr-G11-PM-05-2 Utilising Elevation Angle for Improving SuperDARN velocity Estimates and Echo Geolocation**
Pasha Ponomarenko (1); Mehdi Ghalamkarian Nejad (1); Sasha Koustov (1); Glenn Hussey (1)
(1) University of Saskatchewan (Canada)
Link to paper: <https://doi.org/10.46620/URSIGASS26/GBSI5916>

14:20 - 14:40

- Fr-G11-PM-05-3 Exploration of Lower Ionospheric Absorption Characteristics in the HIDIVE Data Set**
Daniel Stambovsky (1); Daniel Emmons (1); Eccles Vincent (2); Julie Jackson (1); Kenneth Obenberger (3); Kyle Fitch (1); Eugene Dao (3)
(1) Air Force Institute of Technology (United States); (2) Space Dynamics Laboratory (United States); (1) Air Force Institute of Technology (United States); (3) Air Force Research Lab (United States); (1) Air Force Institute of Technology (United States); (3) Air Force Research Lab (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JKKV4350>

Room H

- HJ-4: Radio observations and diagnostics for the Sun, heliosphere and space weather - Part 4**
Session Chairs: Yihua Yan, National Space Science Center, Chinese Academy of Sciences, China
Session Conveners: Mauro Messerotti, Pietro Zucca, Yihua Yan, Natchimuthuk Gopalswamy, Divya Oberoi

Room H

- HJ-4: Radio observations and diagnostics for the Sun, heliosphere and space weather - Part 4**
Session Chairs: Yihua Yan, National Space Science Center, Chinese Academy of Sciences, China
Session Conveners: Mauro Messerotti, Pietro Zucca, Yihua Yan, Natchimuthuk Gopalswamy, Divya Oberoi

14:40 - 15:00

- Fr-HJ-PM-05-1 Investigation of Polarization Signatures from the Fundamental and Harmonic emission of radio signatures of solar coronal shock**
Shilpi Bhunia (1); Carine Briand (1); Diana Morosan (2)
(1) Observatoire de Paris-PSL (France); (2) University of Turku (Finland)
Link to paper: <https://doi.org/10.46620/URSIGASS26/KWEY8526>

15:00 - 15:20

- Fr-HJ-PM-05-2 Unusual Circumstances of the 2024 June 8 GLE**
Natchimuthuk Gopalswamy (1, 2); Pertti Makela (2); Hong Xie (2); Sachiko Akiyama (2); Seiji Yashiro (2); Atul Mohan (2)
(1) NASA Goddard Space Flight Center (United States); (2) The Catholic University of America (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/HRUR3919>

Room J1

- J03-4: Radio Astronomy from Space: Science, Technology and Future Missions - Part 4**
Session Chairs: Yuri Kovalev, Max Planck Institute for Radio Astronomy, Germany; Cristina Garcia-Miro, National Astronomical Observatory, Spain
Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

13:40 - 14:00

- Fr-J03-PM-05-1 The Black Hole Explorer (Invited)**
Michael Johnson (1)
(1) Center for Astrophysics (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/OUSU4516>

14:00 - 14:20

- Fr-J03-PM-05-2 Interferometry in space: the Space Array initiative and SHARP precursor mission (Invited)**
Eric Villard (1); Chiara Ceccobello (2); Vincent Desmaris (3); Fabrizia Guglielmetti (1); Leonid I. Gurvits (4); Peter Huggard (5); George Miley (6); Freek Roelofs (7); Kazi Rygl (8); Gie Han Tan (9); Marjolein Verkouter (10)
(1) European Southern Observatory (Germany); (2) RISE Research Institutes of Sweden (Sweden); (3) Chalmers (Sweden); (1) European Southern Observatory (Germany); (4) Delft

University of Technology (Netherlands); (5) Rutherford Appleton Laboratory (United Kingdom); (6) Leiden University (Netherlands); (7) Radboud University (Netherlands); (8) Istituto Nazionale di Astrofisica (INAF) (Italy); (9) Eindhoven University of Technology (Netherlands); (10) Joint Institute for VLBI ERIC (Netherlands)
Link to paper: <https://doi.org/10.46620/URSIGASS26/MLDP3980>

14:20 - 14:40

- Fr-J03-PM-05-3 Imaging black holes and jets with space-to-space VLBI**
Freek Roelofs (1); Heino Falcke (1)
(1) Radboud University (Netherlands)
Link to paper: <https://doi.org/10.46620/URSIGASS26/AKWB1183>

Room J2

JAC-2: Cosmological HI: observations and precision calibration - Part 2

Session Chairs: Xuelei Chen, National Astronomical Observatories of CAS, China; Demetrios Matsakis, Masterclock, Inc., United States; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Abhirup Datta, Xuelei Chen, Demetrios Matsakis, Kumar Vijay Mishra

13:40 - 14:00

- Fr-JAC-PM-05-1 Beam Chromaticity Optimisation for a 21-cm Cosmology Experiment**
Iman Farhat (1); Kristian Zarb Adam (2); Iman Farhat (1)
(1) University of Malta (Malta); (2) Physics Department, University of Oxford (United Kingdom); (1) University of Malta (Malta)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IPRN4886>

14:00 - 14:20

- Fr-JAC-PM-05-2 Abstract: Optimized design of a double elliptical cylinder antenna for ground based 21cm global spectrum experiment**
Shen zhe Xu (1); Fengquan Wu (1); Jiaqin Xu (1, 2); Shijie Sun (1); Jiacong Zhu (1, 2); Cong Zhang (1); Xuelei Chen (1, 2)
(1) National Astronomical Observatories, Chinese Academy of Sciences (China); (2) University of Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/EOJM9933>

14:20 - 14:40

- Fr-JAC-PM-05-3 Passive Equivalent Circuits for High-Precision Calibration of Radio Antennae in Global 21-cm Cosmology**
Adelicia S. Chu (1, 2); Dominic Anstey (1, 2); Harry Bevins (1, 2); Eloy De Lera Acedo (1, 2)
(1) University of Cambridge (United Kingdom); (2) Kavli Institute for Cosmology (United Kingdom)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SSQH4734>

Room K

KD: RF wearable devices for body area network: from numerical modeling to manufacturing

Session Chairs: Giacomo Paolini, University of Bologna, Italy; Francesca Apollonio, Sapienza University of Rome, Italy

Session Conveners: Micol Colella, Giacomo Paolini

13:40 - 14:00

- Fr-KD-PM-05-1 Microwave Melanoma Detection: Development and Longevity Analysis of Dielectrically Accurate Validation Phantoms**
Rafael Fiore (1); Paul Stanwix (1); Lena Kranold (1, 2)
(1) University of Western Australia (Australia); (2) Arry Perkins Institute of Medical Research (Australia)
Link to paper: <https://doi.org/10.46620/URSIGASS26/CMXZ3216>

14:00 - 14:20

- Fr-KD-PM-05-2 Antenna-Driven RF Sensing for Real-Time Wearable Eye Blink Detection**
Giacomo Paolini (1); Giuseppe Castellisi (1); Diego Masotti (1); Alessandra Costanzo (1)
(1) *University of Bologna (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/SWIE7900>

14:20 - 14:40

- Fr-KD-PM-05-3 Wideband Wearable Button Antenna with Conductive Textile Ground for ISM Band Applications**
Shubhanshi Jain (1, 2); Subhradeep Chakraborty (3)
(1) *Indian Institute of Science (IISc) (India)*; (2) *Indian Institute of Space Science and Technology (India)*; (3) *CSIR-CEERI (Central Electronics Engineering Research Institute) - Pilani (India)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/NABL3078>

Room P

ECRTut-2: ECR Tutorial - Part 2

Session Chairs: Fritz Bruce, *Naval Research Laboratory, United States*

13:40 - 14:40

- Fr-ECRTut-PM-05-1 Modern RF Linearity Characterization: Paving the Way for Next-Generation System Design (Invited)**
Ricardo Figueiredo (1)
(1) *Instituto de Telecomunicações (Portugal)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/IRDZ9794>

Starting time between 13:30 - 14:39

Room C

C23: Cell-Free Massive MIMO as a Technology Enabler for 6G Networks

Session Chairs: Hmaied Shaiek, *CNAM, France*; Jean-Baptiste Doré, *CEA-Leti, Université Grenoble Alpes, France*; Amor Nafkha, *IETR - UMR CNRS 6164, CentraleSup'elec, France*

Session Conveners: Hmaied Shaiek, Jean-Baptiste Doré, Amor Nafkha

13:40 - 14:00

- Fr-C23-PM-07-1 Industrial IoT DECT-2020-NR Multi-User Distributed MIMO Networks: Performance and Energy Evaluation via Ray-Tracing**
David Demmer (1); Jean-Baptiste Doré (1); Aymen Jaziri (2); Chaima Beldi (3); Didier Le Ruyet (3); Hmaied Shaiek (3); Yoann Corre (2); Pascal Chevalier (3)
(1) *CEA-Leti, Université Grenoble Alpes (France)*; (2) *SIRADEL (France)*; (3) *CNAM (France)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DSKX6209>

14:00 - 14:20

- Fr-C23-PM-07-2 Lean User Activity Detection in Cell-Free Massive MIMO Networks through Quantized Federated Learning**
Ali Elkeshawy (1); Busra Tegin (1); Haifa Fares (1); Amor Nafkha (1)
(1) *IETR - UMR CNRS 6164, CentraleSup'elec (France)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/JOCR8861>

14:20 - 14:40

- Fr-C23-PM-07-3 On the Energy Efficiency of Cell-Free Massive MIMO: Centralized versus Distributed Processing**
Chaima Beldi (1); Aymen Jaziri (2); Hmaied Shaiek (1); Didier Le Ruyet (1); David Demmer (3); Jean-Baptiste Doré (3)
(1) CNAM (France); (2) SIRADEL (France); (1) CNAM (France); (3) CEA (France)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LMIA1031>

14:40 - 15:00

- Fr-C23-PM-07-4 Optimizing Adaptive Beamforming Strategy for Massive MIMO Systems Using DDPG Algorithm**
Yifeng He (1); Yinyu Wei (1)
(1) Xi'an Institute of Space Radio Technology (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LHMO9127>

Starting time between 14:40 - 15:39

Room A

G06-2: LEO topside and radio occultation measurements for ionosphere and plasmasphere estimation and modelling - Part 2

Session Chairs: Mohammed Mainul Hoque, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany; Riccardo Notarpietro, EUMETSAT, Germany; Manuel Hernandez-Pajares, Universitat Politècnica de Catalunya, Spain; Marjolijn Adolfs, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany

Session Conveners: Mainul Hoque, Riccardo Notarpietro, Manuel Hernandez, Marjolijn Adolfs

14:40 - 15:00

- Fr-G06-PM-11-1 Specification of low-latitude ionosphere parameters within the 25th solar cycle based on the COSMIC-2 observations: long-term variability and ionospheric responses to Space Weather (Invited)**
Iurii Cherniak (1); Irina Zakharenkova (1)
(1) University Corporation for Atmospheric Research (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/LGVF4183>
Link to recording: <https://cloud.ilabt.imec.be/index.php/s/XgNYAiRt3DExLkT>

15:00 - 15:20

- Fr-G06-PM-11-2 A High-Precision Electron Density Model Based on COSMIC GNSS Radio Occultation Observations (Invited)**
Shuanggen Jin (1); Feng Lin (2); Liangliang Yuan (2)
(1) Henan Polytechnic University (China); (2) Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)
Link to paper: <https://doi.org/10.46620/URSIGASS26/SKMO9842>

Room B1

B08-5: Mathematical modelling of EM problems - Part 5

Session Chairs: Paul Smith, Macquarie University, Australia; Piergiorgio L. E. Uslenghi, University of Illinois Chicago, United States

Session Conveners: Paul Smith, George Uslenghi

14:40 - 15:00

Fr-B08-PM-11-1 The Generalized Wiener-Hopf Technique and the Fredholm Factorization Method Directly Applied to PEC Wedge Scattering Problems in Complex Media (Invited)

Guido Lombardi (1); Vito Daniele (1)
(1) Politecnico di Torino (Italy)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PYRH7917>

15:00 - 15:20

Fr-B08-PM-11-2 Method for Obtaining Simple Analytical Approximations of Wedge Diffraction Coefficients (Invited)

Andrey Osipov (1)
(1) German Aerospace Center (DLR) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TDZA7115>

Room B2

B16-2: Reconfigurable intelligent surfaces (RIS) and their applications - Part 2

Session Chairs: Filippo Costa, Department of Information Engineering, University of Pisa, Italy; Gabriele Gradoni, University of Surrey, United Kingdom

Session Conveners: Filippo Costa, Shuo Liu, Lei Zhang

14:40 - 15:00

Fr-B16-PM-11-1 Self-Consistent Electromagnetics Modeling of Reconfigurable Intelligent Surfaces under Multipath Propagation

Gang Yu (1); Gabriele Gradoni (1)
(1) University of Surrey (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NWVO5058>

15:00 - 15:20

Fr-B16-PM-11-2 An Investigation into the Design of Three-Layer Reconfigurable Metasurfaces

Pedram Mojabi (1); Maximilian Yonza (1); Gregory Bridges (1); Puyan Mojabi (1)
(1) University of Manitoba (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/HLDI6996>

Room D

H01: Open Session

Session Chairs: Craig J. Rodger, University of Otago, New Zealand; Robert Marshall, University of Colorado Boulder, United States

Session Conveners: Craig Rodger, Robert Marshall

14:40 - 15:00

Fr-H01-PM-11-1 VLF Illumination of the Inner Magnetosphere by Lightning-generated Whistlers

Emre Taskiran (1); Umran Inan (1); David Lauben (2); Ahmet Hamdi Unal (1); Ryan Said (3); Ivan Linscott (2); Gregory Ginet (4); Bill Farrell (5)
(1) Koc University (Turkey); (2) Stanford University (United States); (3) Koc University (Turkey); (4) Vaisala Inc (United States); (5) Space Science Institute (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FHSQ7715>

Room E

B19-2: Electromagnetics in various sensing applications - Part 2

Session Chairs: Artur Rydosz, AGH University of Krakow, Poland; Ilona Piekarz, AGH University of Krakow, Poland

Session Conveners: Artur Rydosz, Kamil Staszek, Ilona Piekarz

14:40 - 15:00

Fr-B19-PM-11-1 Dual-Path Convolutional Neural Network for CT-Based Virtual Human Twin in Vectorcardiographic Analysis

Michał Szafarczyk (1); Krzysztof Malinowski (1); Peter Van Dam (1); Klaudia Proniewska-van Dam (1)

(1) Jagiellonian University Medical College, Faculty of Medicine (Poland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/SAUV8111>

Room F

FG-3: Innovations in Space Surveillance and Environmental Interaction - Part 3

Session Chairs: Austin Egert, Orion Space Solutions, United States; Liliana Macotela, Norwegian Research Centre, Norway

Session Conveners: Liliana Macotela, Austin Egert, Sari Lasanen, Tom Grydeland

14:40 - 15:00

Fr-FG-PM-11-1 Tracking Space Emissions Up to the Edge of Space (Invited)

Gerd Baumgarten (1); Ronald Eixmann (1); Jan Froh (1); Michael Gerding (1); Josef Höffner (1); Thorben Lüke-Mense (1); Ashique Vellalassery (1); Robin Wing (1)

(1) Leibniz Institute of Atmospheric Physics (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TRFF9825>

Room G1

G11-2: HF Radar Applications: Modeling, Observations, Phenomenology, and Propagation - Part 2

Session Chairs: Dima Paznukhov, Boston College, United States; Hanna Rothkaehl, Space Research Center, PAS, Warsaw, Poland, Poland

Session Conveners: Dima Paznukhov, Joseph Malins, Kate Zawdie, Hanna Rothkaehl

14:40 - 15:00

Fr-G11-PM-11-1 Dynamics of the E region irregularities observed with ionsonde and ALTAIR radar during NASA SEED Campaign

Dima Paznukhov (1); Keith Groves (1); Teddy Surco (1); Aroh Barjatya (2)

(1) Boston College (United States); (2) Embry-Riddle Aeronautical University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TSLG5413>

15:00 - 15:20

Fr-G11-PM-11-2 How Bad Could It Be? Quantifying the Errors in Quasi-Midpoint Mapping for Ingesting Oblique Ionograms

Joseph Hughes (1); LJ Nickisch (1); Matt Hogan (1); Kelsey Kramer (1)

(1) NorthWest Research Associates (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/ERNS3316>

Room J1

J03-5: Radio Astronomy from Space: Science, Technology and Future Missions - Part 5

Session Chairs: Yuri Kovalev, Max Planck Institute for Radio Astronomy, Germany; Cristina Garcia-Miro, National Astronomical Observatory, Spain

Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

14:40 - 15:00

- Fr-J03-PM-11-1 Antenna Technology Readiness for the Black Hole Explorer (BHEX) Mission**
Sridharan Tirupati Kumara (1); Robert Lehmensiek (1); Sebastian Schwarz (2); Marrone Daniel (3)
(1) National Radio Astronomy Observatory (United States); (2) Airbus Defence and Space GmbH (Germany); (3) University of Arizona (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/IFJY3974>

15:00 - 15:20

- Fr-J03-PM-11-2 PRATUSH radiometer for cosmic dawn observations in the lunar orbit (Invited)**
Saurabh Singh (1); Mayuri Sathyanarayana Rao (1); Srivani K.S. (1); Girish B.S. (1); Keerthipriya Satish (1); Somashekar R. (1); Adarsh Kumar Dash (1); Narendra S. (1); Yash Agrawal (1); Vishakha S. Pandharpure (1); Bharat Chandra P (1)
(1) Raman Research Institute (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/JATF1230>

Room J2

JAC-3: Cosmological HI: observations and precision calibration - Part 3

Session Chairs: Xuelei Chen, National Astronomical Observatories of CAS, China; Demetrios Matsakis, Masterclock, Inc., United States; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Abhirup Datta, Xuelei Chen, Demetrios Matsakis, Kumar Vijay Mishra

14:40 - 15:00

- Fr-JAC-PM-11-1 Constraints on the 21cm signal from EoR with the uGMRT - Lessons learnt from SKA pathfinder and Implications (Invited)**
Abhirup Datta (1); Rashmi Sagar (1)
(1) Indian Institution of Technology Indore (India)
Link to paper: <https://doi.org/10.46620/URSIGASS26/VPFL9257>

15:00 - 15:20

- Fr-JAC-PM-11-2 21cm results from the Murchison Widefield Array with the Phase 3 upgrade**
Cathryn Trott (1, 2); Nichole Barry (3); Lauren Dressler (4); Jade Ducharme (5); Bryna Hazelton (4); Elias Lilleskov (4); Miguel Morales (4); Dev Null (1); Ridhima Nunhokee (1); Jonathan Pober (5)
(1) Curtin University (Australia); (2) CSIRO (Australia); (3) University of New South Wales (Australia); (4) University of Washington (United States); (5) Brown University (United States)
Link to paper: <https://doi.org/10.46620/URSIGASS26/FOTU4332>

Starting time between 14:40 - 15:39

Room K

SSE: Sponsor Session Ericsson

Session Chairs: To be announced

Starting time between 15:40 - 16:39

Room A

G06-3: LEO topside and radio occultation measurements for ionosphere and plasmasphere estimation and modelling - Part 3

Session Chairs: Mohammed Mainul Hoque, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany; Riccardo Notarpietro, EUMETSAT, Germany; Manuel Hernandez-Pajares, Universitat Politècnica de Catalunya, Spain; Marjolijn Adolfs, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany

Session Conveners: Mainul Hoque, Riccardo Notarpietro, Manuel Hernandez, Marjolijn Adolfs

15:40 - 16:00

Fr-G06-PM-17-1 Electron density modelling using low Earth orbiting satellite data

Marjolijn Adolfs (1); Mohammed Mainul Hoque (1)

(1) Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EOCF2737>

16:00 - 16:20

Fr-G06-PM-17-2 Status and Plans for CDAAC Radio Occultation Mission Ionosphere Products

Jan-Peter Weiss (1)

(1) University Corporation for Atmospheric Research (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FNQJ9140>

16:20 - 16:40

Fr-G06-PM-17-3 Ionospheric Monitoring with GRAS-2 on EUMETSAT EPS-SG mission: Instrument Capabilities, Products, and Early Results

Riccardo Notarpietro (1); Saverio Paoletta (1); Axel Von Engel (1); Christian Marquardt (1); Verónica Rivas Boscán (1); Sebastiano Padovan (1); Francisco Sancho (1); Francisco Martin Alemany (1); Elzbieta Lasota (1); Pedro Cozinhos (1)

(1) EUMETSAT (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QTFT6326>

Room B1

B06-1: Advanced algorithms in computational electromagnetics - Part 1

Session Chairs: Vladimir Okhmatovski, University of Manitoba, Canada; Simon Adrian, Universität Rostock, Germany

Session Conveners: Vladimir Okhmatovski, Shinichiro Ohnuki, Adrien Merlini

15:40 - 16:00

Fr-B06-PM-17-1 More Stable Multipole-based Two-Dimensional Generalized Source Integral Equations

Yossi Dahan (1); Simon B. Adrian (2); Amir Boag (3); Ludger Klinkenbusch (4); Yaniv Brick (1)

(1) Ben Gurion University of the Negev (Israel); (2) Universität Rostock (Germany); (3) Tel Aviv University (Israel); (4) Kiel University (Germany); (1) Ben Gurion University of the Negev (Israel)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QXDY1369>

16:00 - 16:20

- Fr-B06-PM-17-2 An OSRC Preconditioner for the PMCHWT Equation**
Simon Verbruggen (1); Van Chien Le (1); Kristof Cools (1); Paul Escapil-Inchauspé (2); Carlos Jerez-Hanckes (2)
(1) *Ghent University (Belgium)*; (2) *INRIA Chile (Chile)*
Link to paper: <https://doi.org/10.46620/26-0030>

16:20 - 16:40

- Fr-B06-PM-17-3 An OSRC-Preconditioned Combined Field Integral Equation for High-Frequency Electromagnetic Scattering**
Van Chien Le (1); Simon Verbruggen (1); Paul Escapil-Inchauspé (2); Carlos Jerez-Hanckes (2); Kristof Cools (1)
(1) *Ghent University (Belgium)*; (2) *INRIA Chile (Chile)*; (1) *Ghent University (Belgium)*
Link to paper: <https://doi.org/10.46620/26-0076>

Room B2

BE-1: Quantum electromagnetics - Part 1

- Session Chairs:* Gabriele Gradoni, *University of Surrey, United Kingdom*; Michael Haider, *University of the Bundeswehr Munich, Germany*; Luca Bastianelli, *Università Politecnica delle Marche, Italy*
Session Conveners: Gabriele Gradoni, Michael Haider, Luca Bastianelli

15:40 - 16:00

- Fr-BE-PM-17-1 Uncertainty-Aware Simplicial Curvature Metrics for Resilient Quantum Communication and Distributed Quantum Computing**
Vignesh Raman (1); Riccardo Bassoli (1); Frank H.P. Fitzek (1)
(1) *Technische Universität Dresden (Germany)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/QKOH2960>

16:00 - 16:20

- Fr-BE-PM-17-2 Hybrid Quantum-Classical Optimization of a Compact Circular Reflectarray at S-Band**
Gabriel F. Martinez (1); Eleonora L. Zich (1); Alessandro Niccolai (1); Riccardo E Zich (1)
(1) *Politecnico di Milano (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/TUIW4651>

16:20 - 16:40

- Fr-BE-PM-17-3 Quantum Simulation of Maxwell's Equations**
Gabriele Gradoni (1); Emanuel Colella (2); Luca Bastianelli (2); Franco Moglie (2); Valter Mariani Primiani (2)
(1) *University of Surrey (United Kingdom)*; (2) *Università Politecnica delle Marche (Italy)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/FICN1461>

Room E

BA: Recent advances in measurement techniques for spatially distributed electromagnetic fields

- Session Chairs:* Olav Breinbjerg, *Denmark*; Tian Loh, *National Physical Laboratory, UK, United Kingdom*
Session Conveners: Olav Breinbjerg, Tian Hong Loh

15:40 - 16:00

- Fr-BA-PM-17-1 On-axis realized gain estimation using infrared thermography**
Ricardo Carrizales-Juarez (1); Rui Vas-Almeida (1); Adrien Laffont (1); Stephane Fauré (1)
(1) *ANYFIELDS (France)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/AAUK1891>

16:00 - 16:20

Fr-BA-PM-17-2 Experimental-Numerical Validation of Derivative Probe Sampling for Planar and Spherical Near-Field Antenna Measurements (Invited)

Olav Breinbjerg (1)

(1) *Olav Breinbjerg (Denmark)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/FNHX6626>

Room G1

G11-3: HF Radar Applications: Modeling, Observations, Phenomenology, and Propagation - Part 3

Session Chairs: Dima Paznukhov, Boston College, United States; Hanna Rothkaehl, Space Research Center, PAS, Warsaw, Poland, Poland

Session Conveners: Dima Paznukhov, Joseph Malins, Kate Zawdie, Hanna Rothkaehl

15:40 - 16:00

Fr-G11-PM-17-1 Modelling of the ionosphere during the solar eclipse of 8 April 2024

Artem Reznichenko (1, 2); Dima Paznukhov (3); Andriy Zalizovski (1, 2); Oleksandr Koloskov (4, 2); Anton Kashcheyev (5); Oleksandr Bogomaz (6, 2); Volodymyr Lisachenko (2); Oleg Budanov (2); Andriy Sopin (2, 7); Bogdan Gavrylyuk (2)

(1) *Space Research Centre of the Polish Academy of Sciences (Poland)*; (2) *Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine)*; (3) *Boston University (United States)*; (4) *University of New Brunswick (Canada)*; (5) *University of Birmingham (United Kingdom)*; (6) *Institute of Ionosphere (Ukraine)*; (7) *National Antarctic Scientific Center of Ukraine (Ukraine)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RXGF7881>

16:00 - 16:20

Fr-G11-PM-17-2 Forecasting Sporadic E's Impact on OTH Radar using Planetary Wave Signatures in Radio Occultation Data

Joseph Hughes (1); Matt Hogan (1); Kelsey Kramer (1); Dan Emmons (2); Ken Obenberger (3)

(1) *NorthWest Research Associates (United States)*; (2) *Air Force Institute of Technology (United States)*; (3) *Air Force Research Lab (United States)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/WURU3459>

16:20 - 16:40

Fr-G11-PM-17-3 Initial Validation of a Multi-Static Inversion-Based Coordinate Registration System for High-Frequency Over-the-Horizon Radar

Joshua J. Ruck (1); David R. Themens (1); Sean Elvidge (1)

(1) *University of Birmingham (United Kingdom)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/JIAO5808>

Room J1

J03-6: Radio Astronomy from Space: Science, Technology and Future Missions - Part 6

Session Chairs: Yuri Kovalev, Max Planck Institute for Radio Astronomy, Germany; Cristina Garcia-Miro, National Astronomical Observatory, Spain

Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

15:40 - 16:00

Fr-J03-PM-17-1 L-FIRE: A Space-Based Low-Frequency Interferometric Array for Solar, Planetary and Galactic Radio Science

Jasmina Lazendic-Galloway (1); Pietro Zucca (2); Mark Bentum (1); Peter Roelfsema (3); Jan Geralt Blj de Vaate (3); Wouter Laauwen (3); Antonio Vecchio (4); Christiaan Brinkerink (4); David Prinsloo (2)

(1) *Eindhoven University of Technology (Netherlands)*; (2) *ASTRON (Netherlands)*; (1) *Eindhoven University of Technology (Netherlands)*; (3) *Space Research Organisation*

Netherlands (SRON) (Netherlands); (4) Radboud University (Netherlands); (2) ASTRON (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KVOA7945>

16:00 - 16:20

Fr-J03-PM-17-2 VLBI Tracking of ESA's JUICE Spacecraft: Results from PRIDE Observations for Precision Orbit Determination

Guifre Molera Calves (1); Oliver J. White (1); Jasper Edwards (1); Dominic Dirkx (2); Giuseppe Cimo (3); Jon Quick (4); Alfonso Sanchez Gutierrez (2); Leonid Gurvits (2) (1) University of Tasmania (Australia); (2) Delft University of Technology (Netherlands); (3) Joint Institute for VLBI ERIC (Netherlands); (4) Hartebeesthoek Radio Astronomy Observatory (South Africa); (2) Delft University of Technology (Netherlands)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EBFE7486>

16:20 - 16:40

Fr-J03-PM-17-3 Lunar Orbital VLBI Experiment: Data correlation system

Juan Zhang (1)
(1) Shanghai Astronomical Observatory, Chinese Academy of Sciences (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/FGDO8649>

Room J2

JAC-4: Cosmological HI: observations and precision calibration - Part 4

Session Chairs: Xuelei Chen, National Astronomical Observatories of CAS, China; Demetrios Matsakis, Masterclock, Inc., United States; Kumar Vijay Mishra, University of Maryland, United States

Session Conveners: Abhirup Datta, Xuelei Chen, Demetrios Matsakis, Kumar Vijay Mishra

15:40 - 16:00

Fr-JAC-PM-17-1 Direction-Dependent Mutual Coupling Calibration for SKA-Low 21-cm Cosmology

Oscar Sage David O'Hara (1, 2); Quentin Gueuning (1, 2); Eloy De Lera Acedo (1, 2); John Cumner (1, 2)

(1) University of Cambridge (United Kingdom); (2) Kavli Institute for Cosmology (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CXRA8417>

Room P

KTut: Commission K Tutorial

Session Chairs: Francesca Apollonio, URSI Commission K Chair

15:40 - 16:40

Fr-KTut-PM-17-1 Single-cell Dielectrophoresis and Dielectric Spectroscopy (Invited)

Elham Salimi (1)

(1) University of Manitoba (Canada)

Link to paper: <https://doi.org/10.46620/URSIGASS26/BNVN3435>

Starting time between 16:40 - 17:39

Room A

G06-4: LEO topside and radio occultation measurements for ionosphere and plasmasphere estimation and modelling - Part 4

Session Chairs: Mohammed Mainul Hoque, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany; Riccardo Notarpietro, EUMETSAT, Germany; Manuel

Hernandez-Pajares, Universitat Politècnica de Catalunya, Spain; Marjolijn Adolfs, Institute for Solar-Terrestrial Physics, German Aerospace Center (DLR e.V.), Germany

Session Conveners: Mainul Hoque, Riccardo Notarpietro, Manuel Hernandez, Marjolijn Adolfs

17:00 - 17:20

Fr-G06-PM-23-2 Investigation of mid-latitude ionospheric trough location and its dynamics using LEO satellites data

M Mainul Hoque (1); Kateryna Lubyk (1)

(1) German Aerospace Center (DLR) (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QZQO1836>

17:20 - 17:40

Fr-G06-PM-23-3 Topside Ionosphere Disturbances Analysis and TEC prediction based on LEO Satellites data

Yeying Dai (1); Haiyang Fu (1)

(1) Fudan University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KJPP5733>

Room B1

B06-2: Advanced algorithms in computational electromagnetics - Part 2

Session Chairs: Vladimir Okhmatovski, University of Manitoba, Canada; Simon Adrian, Universität Rostock, Germany

Session Conveners: Vladimir Okhmatovski, Shinichiro Ohnuki, Adrien Merlini

16:40 - 17:00

Fr-B06-PM-23-1 Efficient Analysis of a Fiber SPR Sensor Using the Frequency-Dependent Cylindrical HIE-FDTD Method for the Drude-Lorentz Model

Jun Shibayama (1); Yuichi Hirabayashi (1)

(1) Hosei University (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KACO9862>

17:00 - 17:20

Fr-B06-PM-23-2 Error Analysis of Earth-Ionosphere FDTD in a Nonuniform Spherical Coordinate System

Steven B. Perry (1); W. Clint Snider (1)

(1) Auburn University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/QKJS9399>

17:20 - 17:40

Fr-B06-PM-23-3 Finite Element Method for Homogenized Metasurfaces

Qiang Ren (1)

(1) Beihang University (China)

Link to paper: <https://doi.org/10.46620/URSIGASS26/TFUT6020>

Room B2

BE-2: Quantum electromagnetics - Part 2

Session Chairs: Gabriele Gradoni, University of Surrey, United Kingdom; Michael Haider, University of the Bundeswehr Munich, Germany; Luca Bastianelli, Università Politecnica delle Marche, Italy

Session Conveners: Gabriele Gradoni, Michael Haider, Luca Bastianelli

16:40 - 17:00

Fr-BE-PM-23-1 Semiclassical Modeling of Rydberg Quantum Sensing Using Full-Wave Maxwell-Bloch Equations (Invited)

Michael Schreiber (1); Johannes Stowasser (1); Christian Jirauschek (1); Michael Haider (2)
(1) Technical University of Munich (Germany); (2) University of the Bundeswehr Munich (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KTVZ8947>

17:00 - 17:20

Fr-BE-PM-23-2 Dynamic Modeling of Quantum Optoelectronic Devices (Invited)

Christian Jirauschek (1); Johannes Stowasser (1); Michael Schreiber (1)
(1) Technical University of Munich (Germany)

Link to paper: <https://doi.org/10.46620/URSIGASS26/EKFL5274>

17:20 - 17:40

Fr-BE-PM-23-3 Noise avalanche and its quantum quenching in waveguide chains (Invited)

Vladislav Stefanov (1); Maxim Anzuch (2); André Stefanov (1); Dmitri Mogilevtsev (2)
(1) University of Bern (Switzerland); (2) B.I.Stefanov Institute of Belarus (Belarus); (1) University of Bern (Switzerland); (2) B.I.Stefanov Institute of Belarus (Belarus)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RJDI7481>

Room G1

G11-4: HF Radar Applications: Modeling, Observations, Phenomenology, and Propagation - Part 4

Session Chairs: Dima Paznukhov, Boston College, United States; Hanna Rothkaehl, Space Research Center, PAS, Warsaw, Poland, Poland

Session Conveners: Dima Paznukhov, Joseph Malins, Kate Zawdie, Hanna Rothkaehl

16:40 - 17:00

Fr-G11-PM-23-1 Traveling Ionospheric Disturbances of the 2022 Tonga Volcano Eruption Observed by HF Doppler Sounding systems, ionosonde, Ground-based GNSS Receivers in Taiwan

Tien-Chi Liu (1); Yin-Rui Su (2); Yu-Chieh Huang (3); Cissi Ying-Tsen Lin (1)
(1) National Central University (Taiwan); (2) Center for Astronautical Physics and Engineering (Taiwan); (3) University of California (United States); (1) National Central University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/NHWD6010>

17:00 - 17:20

Fr-G11-PM-23-2 Long-distance HF Propagation from the Northern Hemisphere to the Antarctic Peninsula Region: Long-term Observations and Modeling

Andriy Zalozovski (1, 2); Sergiy Kashcheyev (1); Oleksandr Koloskov (1, 3); Oleksandr Bogomaz (4, 1); Volodymyr Lisachenko (1); Oleg Budanov (1); Andriy Sopin (1, 3); Bogdan Gavrylyuk (1); Anna Soina (1)

(1) Institute of Radio Astronomy, National Academy of Sciences of Ukraine (Ukraine); (2) Space Research Centre of the Polish Academy of Sciences (Poland); (3) National Antarctic Scientific Center of Ukraine (Ukraine); (4) Institute of Ionosphere (Ukraine)

Link to paper: <https://doi.org/10.46620/URSIGASS26/CVUT2853>

Room J1

J03-7: Radio Astronomy from Space: Science, Technology and Future Missions - Part 7

Session Chairs: Yuri Kovalev, *Max Planck Institute for Radio Astronomy, Germany*; Cristina Garcia-Miro, *National Astronomical Observatory, Spain*

Session Conveners: Yuri Kovalev, Cristina Garcia-Miro, Gabriele Bruni, Joseph Lazio

16:40 - 17:00

Fr-J03-PM-23-1 The Next-generation Very Large Array and Space VLBI (Invited)

Lucas Hunt (1); Walter Briskin (1); Eric Murphy (1); Jay Blanchard (1); Justin Linford (1)
(1) *National Radio Astronomy Observatory (United States)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/WBBA5423](https://doi.org/10.46620/URSIGASS26/WBBA5423)

17:00 - 17:20

Fr-J03-PM-23-2 The Square Kilometre Array and the Future of Space-VLBI (Invited)

Olga Bayandina (1)
(1) *SKA Observatory (United Kingdom)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/WZRA7585](https://doi.org/10.46620/URSIGASS26/WZRA7585)

17:20 - 17:40

Fr-J03-PM-23-3 Global Efforts in Space Exploration at the Highest Angular Resolution

Zsolt Paragi (1); Aga Slowikowska (1); Marcello Giroletti (2); Cristina Garcia-Miro (3)
(1) *Joint Institute for VLBI ERIC (Netherlands)*; (2) *Istituto di Radioastronomia (Italy)*; (3) *Centro de Desarrollos Tecnológicos, Observatorio de Yebes (IGN) (Spain)*

[Link to paper: https://doi.org/10.46620/URSIGASS26/ULTB2142](https://doi.org/10.46620/URSIGASS26/ULTB2142)

Starting time between 17:40 - 20:00

Room A

ACCA-3: Commission A - Coordinating Activities Meeting - Part 3

Session Chairs: Amitava Sen Gupta, URSI Commission A Chair

Room B1

BCCA-3: Commission B - Coordinating Activities Meeting - Part 3

Session Chairs: Henrik Wallen, URSI Commission B Chair

Room B2

CCCA-3: Commission C - Coordinating Activities Meeting - Part 3

Session Chairs: Kumar Vijay Mishra, URSI Commission C Chair

Room D

DCCA-3: Commission D - Coordinating Activities Meeting - Part 3

Session Chairs: Atsushi Kanno, URSI Commission D Chair

Room E

ECCA-3: Commission E - Coordinating Activities Meeting - Part 3

Session Chairs: Carlo Carobbi, URSI Commission E Chair

Room F

FCCA-3: Commission F - Coordinating Activities Meeting - Part 3

Session Chairs: Motoyuki Sato, URSI Commission F Chair

Room G1

GCCA-3: Commission G - Coordinating Activities Meeting - Part 3

Session Chairs: Keith Groves, URSI Commission G Chair

Room H

HCCA-3: Commission H - Coordinating Activities Meeting - Part 3

Session Chairs: Craig J. Rodger, URSI Commission H Chair

Room J1

JCCA-3: Commission J - Coordinating Activities Meeting - Part 3

Session Chairs: Stefan Wijnholds, URSI Commission J Chair

Room K

KCCA-3: Commission K - Coordinating Activities Meeting - Part 3

Session Chairs: Francesca Apollonio, URSI Commission K Chair

Saturday, 22 August 2026

Starting time between 08:00 - 09:29

Room B1

B06-3: Advanced algorithms in computational electromagnetics - Part 3

Session Chairs: Vladimir Okhmatovski, University of Manitoba, Canada; Ming Dong, Technology Innovation Institute, United Arab Emirates

Session Conveners: Vladimir Okhmatovski, Shinichiro Ohnuki, Adrien Merlini

08:30 - 08:50

Sa-B06-AM-04-1 An Efficient Parallel Discontinuous Galerkin Time-Domain Method for Large Scale Coated Object Simulation

Ming Dong (1); Papa Ousmane Leye (1); Islem Yahi (1); Chaouki Kasmi (1); Felix Vega (1)
(1) Technology Innovation Institute (United Arab Emirates)

Link to paper: <https://doi.org/10.46620/URSIGASS26/RNGE7657>

08:50 - 09:10

Sa-B06-AM-04-2 Uncertainty Quantification of Frequency Characteristics in FDTD Simulations via Multilevel Monte Carlo Method

Sicheng An (1); Luca Di Rienzo (1); Hao Qin (2); Xinyue Zhang (3); Lorenzo Codecasa (1)
(1) Politecnico di Milano (Italy); (2) Sichuan University (China); (3) University College Dublin (Ireland); (4) University of Alberta (Canada); (1) Politecnico di Milano (Italy)

Link to paper: <https://doi.org/10.46620/26-0019>

09:10 - 09:30

Sa-B06-AM-04-3 A Physics-Informed Neural Network Approach Based on Kirchhoff's Boundary Integral Equation in Electromagnetics

Kazuhiro Fujita (1)
(1) Saitama Institute of Technology (Japan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/MDIM3153>

Room B2

B16-3: Reconfigurable intelligent surfaces (RIS) and their applications - Part 3

Session Chairs: Filippo Costa, Department of Information Engineering, University of Pisa, Italy; Krushna Kanth Varikuntla, Queen's University Belfast, United Kingdom

Session Conveners: Filippo Costa, Shuo Liu, Lei Zhang

08:30 - 08:50

Sa-B16-AM-04-1 A Physical Optics-based Approach for Holographic Metasurfaces Inverse Scattering and Phase Retrieval

Athanasios Nousiou (1, 2); Alexandros Pitilakis (1); Christos K. Liaskos (3); Zaharias D. Zaharis (1); Pavlos Lazaridis (4); Antonino Albanese (2); Nikolaos V. Kantartzis (1)
(1) Aristotle University of Thessaloniki (Greece); (2) Italtel S.p.A. (Italy); (3) University of Ioannina (Greece); (4) School of Computing and Engineering, University of Huddersfield (United Kingdom)

Link to paper: <https://doi.org/10.46620/URSIGASS26/XZOF5469>

08:50 - 09:10

- Sa-B16-AM-04-2 Plasma Windowing Technique for Reconfigurable Surface Beam Steering (Invited)**
Krushna Kanth Varikuntla (1); Muhammad Ali Babar Abbasi (1); Okan Yurduseven (1)
(1) *Queen's University Belfast (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/OUXH9159>

09:10 - 09:30

- Sa-B16-AM-04-3 Design of Wideband Active Reconfigurable Intelligent Surface**
Min Li (1); Fanfei Yang (1)
(1) *Tianjin University (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/WQLJ2501>

Room G1

G08-5: Monitoring Global Space Weather with the International Meridian Circle Program - Part 5

Session Chairs: Michel Blanc, IRAP, Université de Toulouse, CNRS, CNES, France; Qing-He Zhang, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

09:30 - 09:50

- Sa-G08-AM-04-1 GNSS and ISR Measured Ionospheric Responses to Prompt Penetration Electric Field during Recent Solar Storms: A Simultaneous Dayside and Nightside Scenario along the American-Asian Meridian (Invited)**
Shun-Rong Zhang (1); Anthea Coster (1); Philip Erickson (1); Larisa Goncharenko (1)
(1) *Massachusetts Institute of Technology (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/UGBR6878>

09:50 - 10:10

- Sa-G08-AM-04-2 Ionospheric Scintillation Effects on the GNSS Network Over China During Geomagnetic Storm**
Donghe Zhang (1); Yi Zeng (1)
(1) *School of the Earth and Space Science, Peking University (China)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/PZCI7263>

Room K

G12-3: Open Session - Part 3

Session Chairs: Sean Elvidge, University of Birmingham, United Kingdom; Dario Sabbagh, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Session Conveners: Keith Groves, Sean Elvidge, Dario Sabbagh, Bruce Fritz, David Themens

08:30 - 08:50

- Sa-G12-AM-04-1 ENSO Extremes and Equatorial Ionospheric Instabilities Revealed by Multi-Day GNSS Δ -vTEC Keograms**
Salih Mehmed Bostan (1); Julio V. Urbina (2)
(1) *Bursa Technical University (Turkey)*; (2) *Penn State University (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/CPKH8646>

08:50 - 09:10

- Sa-G12-AM-04-2 Validating Model Output with Hand-Scaled Ionograms**
Ian Collet (1); Camella Nasr (1); Scott Thaller (1); Rachel Stutz (1); Jeremy Highley (1); Austin Egert (1); Joaquin Ramirez (1); Eugene Dao (2); Russell Landry (2); Joe Malins (2)
(1) *Orion Space Solutions (United States)*; (2) *Air Force Research Lab (United States)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/HOBN3611>

09:10 - 09:30

- Sa-G12-AM-04-3 Ionospheric response to the 2025 Mandalay (Myanmar) earthquake: GNSS-TEC observations and physics-based interpretation of TID anisotropy**
Marco Guerra (1); Claudio Cesaroni (1); Ines Dahlia Ouar (2); Elvira Astafyeva (2)
(1) *Istituto Nazionale di Geofisica e Vulcanologia (Italy)*; (2) *Université Paris Cité, Institut de physique du globe de Paris (IPGP) (France)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/EFWJ6157>

Starting time between 09:30 - 10:29

Room B1

B06-4: Advanced algorithms in computational electromagnetics - Part 4

- Session Chairs:* Vladimir Okhmatovski, University of Manitoba, Canada; Ming Dong, Technology Innovation Institute, United Arab Emirates
Session Conveners: Vladimir Okhmatovski, Shinichiro Ohnuki, Adrien Merlini

09:30 - 09:50

- Sa-B06-AM-10-1 Exploiting dielectric waveguide networks to calculate approximate PDE solutions at telecommunication wavelengths**
Ross Glyn MacDonald (1); Victor Pacheco-Peña (1)
(1) *Newcastle University (United Kingdom)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/LBJJ7687>

09:50 - 10:10

- Sa-B06-AM-10-2 Multi-Physics Analysis of a Terahertz Optical-Conductive Antenna Considering Light Incidence**
Yuki Muraosa (1); Yoichiro Akimoto (1); Jun Shibayama (1)
(1) *Hosei University (Japan)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/VVUJ5507>

Room B2

B16-4: Reconfigurable intelligent surfaces (RIS) and their applications - Part 4

- Session Chairs:* Filippo Costa, Department of Information Engineering, University of Pisa, Italy; Krushna Kanth Varikuntla, Queen's University Belfast, United Kingdom
Session Conveners: Filippo Costa, Shuo Liu, Lei Zhang

09:30 - 09:50

- Sa-B16-AM-10-1 Spatiotemporal Metasurface Antenna for Flexible OAM Generation**
Geng-Bo Wu (1); Yizhu Yan (1)
(1) *City University of Hong Kong (Hong Kong)*
Link to paper: <https://doi.org/10.46620/26-0080>

09:50 - 10:10

- Sa-B16-AM-10-2 Combined Static and Reconfigurable Unit Cells for 2D Metasurface Beam Shaping**
Chen Niu (1); Maximilian Yonza (1); Mario Phaneuf (1); Puyan Mojabi (1)
(1) *University of Manitoba (Canada)*
Link to paper: <https://doi.org/10.46620/URSIGASS26/DNUK4662>

Room G1

G08-6: Monitoring Global Space Weather with the International Meridian Circle Program - Part 6

Session Chairs: Michel Blanc, IRAP, Université de Toulouse, CNRS, CNES, France; Qing-He Zhang, National Space Science Center, Chinese Academy of Sciences, China

Session Conveners: Qing-He Zhang, Zong-Hua Ding, Michel Blanc, Wojciech Miloch

10:30 - 10:50

Sa-G08-AM-10-1 Monitoring the Hemisphere Asymmetry of the Global Ionosphere Map in the Total Electron Content with the International Meridian Circle Program (Invited)

Jann-Yenq Liu (1); Charles C.-H. Lin (2); Yu-Chi Chang (1); Tsung-Yu Wu (1); Chi-Yen Lin (1)
(1) National Central University (Taiwan); (2) National Cheng Kung University (Taiwan); (1) National Central University (Taiwan)

Link to paper: <https://doi.org/10.46620/URSIGASS26/PQEZ1838>

10:50 - 11:10

Sa-G08-AM-10-2 Physical Links Between Weather in Space and Weather in the Lower Atmosphere: Scientific Priorities and Pathways Toward Coordinated International Action

Michel Blanc (1); Matthiew Taylor (2); Anja Stromme (3); Rune Floberghagen (3); Lisa Baddeley (4); Eric Donovan (5); Eelco Doornbos (6); Maxime Grandin (7); Kristi Kauristie (7); Emil Lawrence Kepko (8); Steve Milan (9); Noora Partamies (4); Tim Stockdale (10); Claudia Stolle (11); Michael Rast (12)
(1) IRAP, Université de Toulouse, CNRS, CNES (France); (2) European Space Agency ESTEC (Netherlands); (3) The European Space Agency Centre for Earth Observation (Italy); (4) University Centre in Svalbard (Norway); (5) University of Calgary (Canada); (6) Royal Dutch Meteorological Institute (KNMI) (Netherlands); (7) Finnish Meteorological Institute (Finland); (8) NASA Goddard Space Flight Center (United States); (9) University of Leicester (United Kingdom); (4) University Centre in Svalbard (Norway); (10) European Centre for Medium Range Weather Forecasting (United Kingdom); (11) Leibniz-Institut für Atmosphärenphysik (Germany); (12) International Space Science Institute (Switzerland)

Link to paper: <https://doi.org/10.46620/URSIGASS26/WTQB2008>

Starting time between 10:30 - 11:29

Room B1

B06-5: Advanced algorithms in computational electromagnetics - Part 5

Session Chairs: Vladimir Okhmatovski, University of Manitoba, Canada; Clint Snider, Auburn University, United States

Session Conveners: Vladimir Okhmatovski, Shinichiro Ohnuki, Adrien Merlini

10:30 - 10:50

Sa-B06-AM-16-1 Finite-Difference, Open-Boundary Electrostatic Potential with Dielectrics Using Boundary Relaxation

Clint Snider (1)
(1) Auburn University (United States)

Link to paper: <https://doi.org/10.46620/URSIGASS26/YZAP1438>

10:50 - 11:10

Sa-B06-AM-16-2 Multi-Objective Optimization of Temporally Interfering Microwave Fields for Non-Invasive Deep Brain Stimulation

Melker Carlsson (1); Patrik Nicolausson (1); Mika Söderström (1); Mariana Dalarsson (1)
(1) KTH Royal Institute of Technology (Sweden)

Link to paper: <https://doi.org/10.46620/URSIGASS26/KKYL2345>

11:10 - 11:30

Sa-B06-AM-16-3 Verification of Optical and Thermal Responses in Nanometals for Daytime Radiative Cooling

Jun Ito (1); Seiya Kishimoto (1); Ohnuki Shinichiro (1)
(1) *Nihon University (Japan)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/DRXK9555>

Room B2

B16-5: Reconfigurable intelligent surfaces (RIS) and their applications - Part 5

Session Chairs: Filippo Costa, Department of Information Engineering, University of Pisa, Italy; Shaofeng Zhang, Xidian University, China

Session Conveners: Filippo Costa, Shuo Liu, Lei Zhang

10:30 - 10:50

Sa-B16-AM-16-1 A DIE-Based PHMS Unit for Reconfigurable Holographic Imaging (Invited)

Shaofeng Zhang (1); Jiaqi Han (1); Xiangjin Ma (1); Song Zhang (1); Long Li (1)
(1) *Xidian University (China)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/SSLU1697>

10:50 - 11:10

Sa-B16-AM-16-2 A 1-bit Reconfigurable Four-Layer Transmissive Metasurface Supporting Two Far-Field Patterns

Mathew Evinger (1); Mario Phaneuf (1); Pedram Mojabi (1)
(1) *University of Manitoba (Canada)*

Link to paper: <https://doi.org/10.46620/URSIGASS26/RWRS7324>

Starting time between 11:30 - 12:29

Room P

Closing: Closing Session

Session Chairs: Jozef Modelski, GASS 2026 General Chair