Monthly Newsletter of International URSI Commission J – Radio Astronomy September 2020

Officers

Chair: Richard Bradley ECRs: Stefan Wijnholds Vice-Chair: Douglas Bock Jacki Gilmore

Prepared by R. Bradley, Chair, Commission J, rbradley@nrao.edu

News Items - Greetings from the Chair!

- **Student Paper Competition (SPC)** was held (virtually) during the week August 31. Eleven finalists presented their work on a variety of topics. The top winners were chosen and one is from Commission J! Congratulations to the winners! A summary is given below.
- It is with great sadness that I report the passing of our friend and colleague Prof. Govind Swarup at the age of 91. He was active in URSI for many years. Please see the article by Sanjay Bhatnagar for additional information.
- Preparations are underway for URSI GASS 2021 in Rome! A significant portion of the program will carry over from preparation of the ill-fated GASS 2020. The announcement and important links are provided below.
- Current activities of the International Science Council (ISC) are presented in a letter from the ISC Membership Liaison Officer Anne Thieme – a copy is presented here for your information.
- We need your articles for our Newsletter! If you would like to raise awareness of an
 upgrade at your observatory, report on a recent finding, give your impressions of a new
 book, or provide a personal account of a recent event, I encourage you to submit a few
 pages on a topic of your choice. Your contributions are always welcome.

Results of the Student Paper Competition (SPC)

The virtual student paper competition (SPC) was organized by the URSI General Assembly and Scientific Symposium. The SPC was financially sponsored by the United States National Committee for URSI (USNC-URSI).

The following top five finalists were selected by the jury for cash awards.

1. First Prize (\$1500)

Giulia Sacco, Sapienza University, Rome, Italy for the paper, "Vital Signs Monitoring for Different Chest Orientations Using an FMCW Radar". (Commission K)

2. Second Prize (\$1250)

Miroslav Hanzelka, Institute of Atmospheric Physics, Czech Academy of Sciences, Czech Republic, for the paper, "Modeling the Fine Structure of Natural Discrete Plasma Wave Emissions in the Earth's Radiation Belts". (Commission H)

3. Third Prize (\$1000)

Benjamin Estacio, Stanford University, Stanford, CA, USA, for the paper, "Dust and Atmospheric Effects on Light Gas Gun Hypervelocity Impact Experiments". (Commission G)

4. Fourth Prize (\$750)

Calvin Leung, Massachusetts Institute of Technology, Cambridge, MA, USA, for the paper, "Demonstration of a Synoptic VLBI Technique for Localizing a Non-Repeating Fast Radio Burst with CHIME/FRB". (Commission J)

5. Fifth Prize (\$500)

Navid Barani, University of Michigan, Ann Arbor, MI, USA, for the paper, "A Handheld Mechanical Antenna with Frequency Multiplication and Phase Modulation Capability". (Commission B)

Contributed by Sembiam R. Rengarajan

On behalf of Commission J, congratulations Calvin – well done!

Passing of Govind Swarup

Dear Colleagues,

I regret to inform you that Prof. Govind Swarup passed away in Pune, India after a brief illness (not COVID-19 related) and hospitalization. He was 91 years old. He was the founding director for the National Center for Radio Astrophysics (NCRA/TIFR), Pune which built and operates the Giant Metrewave Radio Telescope (GMRT). Govind did his PhD with Prof. R. Bracewell at Stanford University, USA before returning to India to join as a faculty member at the Tata Institute of Fundamental Research (TIFR). He started the Radio Astronomy group at TIFR which built a number of radio telescopes over time (Kalyan Solar Telescope, Ooty Radio Telescope (ORT), Ooty Synthesis Radio Telescope (OSRT)) culminating into the building of the GMRT at Khodad near Pune.

Govind was a Fellow of the Royal Society of London and all the national science academies in India, and also of The World Academy of Sciences. He had received a number of national and international awards, including the Bhatnagar Award (an Indian award for excellence in science), Padma Shri (a high civilian award in India), the Herschel Medal of the Royal Astronomical Society and the Grote Reber Medal.

To read more about him and his life please visit the following: http://www.ncra.tifr.res.in/
https://en.wikipedia.org/wiki/Govind Swarup#Personal life

I was among the first young PhD students hired by him at the start of the GMRT project. For many of us youngsters, he was a towering and inspiring personality who led by example. One of my first recollections of interaction with him is of after-dinner conversations ranging from Fourier optics to philosophy of life. He would spend hours working with many of us who were building various GMRT subsystems. Those most enjoyable experiences, working as a young student along with an internationally recognized senior scientist were a life changing one, and which launched careers of many of us from India in radio astronomy. Even as we were just starting our careers in scientific research, he encouraged us to think big, look for new problems worth solving and work boldly with a combination of confidence and humility. He remained, till the end, a person with whom young people felt comfortable and inspired. My last personal interaction with him was similar to the first -- part encouraging ("....I have been working through your papers....very interesting...great progress since we talked about all this when building GMRT...") and part challenging ("....you still have this problem unsolved though...I expect that you will pay attention to this...it's important..."). He'll be missed.

The Meterwave Sky-II conference at Pune in March, 2019 was centered around his 90th birthday. During the conference he was actively discussing with the participants on a wide range of topics with his typical child-like curiosity and interest. Even in his last weeks, he remained mentally as active as ever. With colleagues at NCRA, he was working on an article for ARAA till just 10 days ago and discussing HI detections at high-z with the GMRT before his health took a sudden and rapid downturn. He passed away at 9PM (IST), Sept. 7th.

Contributed by Sanjay Bhatnagar

GASS 2021



The GASS 2021 is launched!

Important calls are NOW announced on the

GASS 2021 Website: https://www.ursi2020.org/
Download at https://www.ursi2021.org/calls/



News from the International Science Council (ISC)

To: All Members of the International Science Council (ISC)

Dear ISC Member,

Please find attached a letter by the ISC President Daya Reddy on the launch of the ISC Awards Programme. [immediately following this letter]

In addition, allow me to inform you about the latest ISC initiatives, opportunities for participation and upcoming dates and deadlines, which are outlined below.

1. Welcoming five new members

The ISC warmly welcomes five new additions to its membership:

- · Académie Nationale des Sciences, Arts et Lettres du Bénin (ANSALB) Member Organization
- · Academy of the Social Sciences in Australia (ASSA) Affiliated Member
- Association of Asian Social Science Research Councils (AASSREC) Member Organization
- · International Network for Advancing Science and Policy (INASP) Affiliated Member
- · International Society for Porous Media (InterPore) Affiliated Member

We look very much forward to our collaboration and encourage other ISC Members to connect with our new members, for example on social media (links to the social media accounts can be found on the respective websites).

2. United Nations General Assembly

The 75th United Nations General Assembly (UNGA) opens tomorrow, a provisional agenda is available here: http://undocs.org/en/A/75/150. Browse our UN events calendar to find out when all UN-related events take place in the coming months: https://council.science/what-we-do/our-work-at-the-un/un-related-events/. Please feel free to share these links with your members and wider networks.

ISC Members are also invited to participate in the following webinars around the General Assembly. Details are still being finalized and we invite you to check the Membership Notice Board (under "Key ISC Dates") for updates:

- \cdot "Transformations Within Reach", 29 September, 9 10am EDT, hosted by Norway as part of the IIASA-ISC Consultative Science Platform. Speakers will include:
- Ø H.E. Ban Ki-moon, former UN Secretary General of the United Nations and Patron of the IIASA-ISC Consultative Science Platform,
- Ø H.E. Mary Robinson, Former President of Ireland, Chair of the Elders, ISC Patron and Chair of the Advisory Board of the IIASA ISC Consultative Science Platform
- Ø Heide Hackmann, CEO ISC; Albert van Jaarslveld, CEO of IIASA; and Leena Srivastava, Deputy Director General for Science, IIASA (moderator)
- The UN Research Roadmap to COVID-19 recovery will be launched around the time of the UN General Assembly. Details will follow soon, but if you want early notice in your inbox, we suggest signing up to the dedicated email distribution list by contacting international@cihr-irsc.gc.ca.

3. Join the Discussion on the Future of Scientific and Scholarly Publishing

We are still accepting comments on the draft discussion paper until 30 September: https://council.science/discussion-paper-sci-pub (password: ISC-Scientific-Publishing). Please share your feedback as soon as possible so that we can ensure that perspectives from all ISC members are taken into account. You can also email any comments directly to lizzie.sayer@council.science. We hope that you will be able to join us at one of the virtual meetings to discuss the paper:

- Register for the virtual discussion on 22 September (14:00 16:00 UTC/16:00 18:00 CEST): https://us02web.zoom.us/meeting/register/tZctdOmrqjwtGtAQXteErvrQomnft5NzeBRo

Please submit one official feedback on the draft discussion paper per ISC Member only, and we kindly ask you not to share the ISC Member-only link and survey with others.

You may also be interested to read the ISC occasional paper on business models and market structure within the scholarly communications sector. This paper has just been published and is intended as a complement to the draft discussion paper: https://council.science/publications/business-models/.

4. UNESCO Recommendation on Open Science

UNESCO has recently published inputs on the science community's values and principles for Open Science, Open Access and Open Data, as part of its mandate to develop an international standard-setting instrument on Open Science. We invite you to read the ISC's draft working paper (https://council.science/publications/open-science-for-the-21st-century/) and browse the submissions from the international science community: https://en.unesco.org/science-sustainable-future/open-science/recommendation.

5. ISC Membership Notice Board

We encourage you to visit the ISC Membership Notice Board on a regular basis as we add information such as opportunities, dates and deadlines that are of interest to ISC Members on a regular basis: https://council.science/members/membership-notice-board/. Recent additions to the notice board include:

- · Call for Nominations for the Integrated Marine Biosphere Research project's Scientific Steering Committee (deadline: 15 September)
- · Online capacity-building workshop for stakeholders in the European Region to effectively engage with the United Nations Environment Assembly (17 18 September)
- · Call for Nominations for ISC Unions & Associations: Nominate a liaison to participate in the Digital Representation of Units of Measure (deadline: 25 September)
- · Call for Nominations to Become a Distinguished Fellow of the World Federation of Engineering Organizations (deadline: 1 October)

Please feel free to share these dates and opportunities with your members and wider networks. Thank you for your continued support and please do not hesitate to contact me at any time.

Anne
-----Anne Thieme | Membership Liaison Officer
International Science Council (ISC)
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Paris, France

Kind regards,



Letter from the President

14 September 2020

Dear ISC Members,

I am delighted to announce that the International Science Council <u>Awards Programme</u> is being launched today. The Programme aims to recognize individuals or groups whose work contributes to advancing science as a global public good.

Under the stewardship of an Awards Selection Committee, the Awards Programme will reward efforts from the ISC community to advance international, interdisciplinary scientific research cooperation, to bring scientific knowledge into the public domain, to innovate science education and outreach, and to promote the free and responsible practice of science.

The Award categories are as follows:

- 1. Science for Sustainability Award (one award)
- 2. Science for Policy (one award)
- 3. Policy for Science (one award)
- 4. Scientific Freedom and Responsibility (one award)
- Early Career Scientist Award (six 6 awards from each of the geographic regions of (i) Africa, (ii) Asia,
 (iii) Australia and Oceania, (iv) Europe, (v) North America, and (vi) South America and the Caribbean)

ISC members, affiliated bodies and partners are eligible to nominate candidates for the Awards. These will be conferred every three years, on the occasion of the ISC General Assembly.

The success of the Awards Programme, which will speak to the Council's vision of Science as a Global Public Good and bring new talent to the international scientific community, will depend on you, our members, nominating talented individuals, teams and initiatives in the various Award categories.

Nominations are open now, and will close on 1 February 2021. Details of the nomination and selection process can be found at this page: https://council.science/current/news/nominations-isc-awards/. Please address any questions regarding the Awards Programme to https://council.science/current/news/nominations-isc-awards/. Please address any questions regarding the Awards Programme to https://council.science/current/news/nominations-isc-awards/.

The ISC looks forward to receiving your nominations and to celebrating outstanding examples of international scientific endeavour and cooperation in 2021.

Your sincerely.

Daya Reddy President, International Science Council

Daya Reddy ISC President

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The International Science Council (ISC) is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils

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