

## Monthly Newsletter for International URSI Commission J – Radio Astronomy

October 2017

Prepared by R. Bradley, Chair, Commission J, [rbradley@nrao.edu](mailto:rbradley@nrao.edu)

### Officers

Chair: Richard Bradley  
Vice-Chair: Douglas Bock  
ECRs: Stefan Wijnholds  
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### News Items

Greetings Commission J Members! I'm just starting my three year term as your Chair for the 2017-2020 triennium and want to thank you for giving me this opportunity to serve. I also want to thank our Immediate Past Chair, Willem Baan, for his years of service to URSI. Commission J remains one of the strongest commissions - your continued participation in URSI conferences has made an impact. I want URSI to be your clear choice when it comes time to share your work with others - be it an oral presentation, a technical poster, or simply meeting up with others at our conference for informal discussions. As our career pathways become more narrowly focused, it is nice to have an interdisciplinary venue where experts in so many diverse areas of radio science can come together – a true asset of our Union that should be nurtured. As Chair, my goal is to help maintain and hopefully improve your URSI experience, so please don't hesitate to contact me with your comments and suggestions. It is also important to keep you informed of international URSI activities – I'm planning to do so via monthly newsletters.

The structure of the Newsletter will vary from month to month depending on content. I will use this forum to keep you abreast of the latest URSI news and timely information on the URSI flagship conferences. In addition, I'll include input from our Working Groups, the Radio Science Bulletin, and the journal Radio Science. I hope you will find it both interesting and informative - your comments and suggestions are always welcome.

*Submitted by R. Bradley*

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### 2018 URSI Atlantic Radio Science Conference (2018 AT-RASC)

28 May – 1 June 2018, ExpoMeloneras Convention Centre, Gran Canaria

The following sessions are being planned:

- J.1 Software Enabled Radio Astronomy
  - J.2 Large N Aperture Arrays
  - J.3 Pattern Recognition Applications in Radio Astronomy
  - J.4 Novel Instrument Concepts and Observational Challenges
  - J.5 Detecting Hydrogen Near and Far
  - J.6 Instruments for Education
  - J.7 Mm wave / sub-mm wave science and technology
- S-JACEFG – Applications for pattern recognition methodologies

In addition, three workshops are being planned:

JB - Polarimetry of advanced antenna systems in radio astronomy  
JG - 3-D ionospheric models for radio interferometric calibration  
GJEFH - Space Weather

The AT-RASC will also include a Young Scientist Program and Student Paper Competition. Please see <http://www.atrasc.com/homepage.php> for additional information.

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### **2019 URSI Pacific Radio Science Conference (2019 AP-RASC)**

*9 -15 March 2019, New Delhi India*

Plans are underway for the 2019 AP-RASC in New Delhi, India. Please see <http://aprasc2019.com/> for details.

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### **2020 URSI General Assembly and Scientific Symposium (2020 URSI GASS)**

*Rome, Italy*

The site for the next URSI General Assembly and Scientific Symposium has been chosen! Stay tuned for details.

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### **Radio Science Bulletin**

The most recent issue of the Bulletin may be downloaded from the following website: [http://www.ursi.org/content/RSB/RSB\\_360\\_2017\\_03.pdf](http://www.ursi.org/content/RSB/RSB_360_2017_03.pdf) Beginning with this issue, current issues of the Bulletin and the archives back to September 2002 are available on IEEE Xplore thanks to the tireless efforts of Ross Stone. In fact, starting with the next (June) issue, the link you receive in your e-mail alert when the issue becomes available will point to the issue on Xplore. If you go to <http://ieeexplore.ieee.org/Xplore/home.jsp>, choose Browse...Journals and Magazines, and type in URSI, you will find the archives of the Bulletin. This (June) issue will be available on Xplore about one to two weeks after you receive the e-mail announcement of the issue. The contents of each issue are all available for downloading as PDFs. The current and past issues of the Bulletin are available on Xplore as a free, open-access publication: anyone can access it, without a subscription.

In this (March) issue, Jacob Baars provides a review of an unusual new book on the history of radio astronomy in The Netherlands. Harvey Liszt presents the Annual Report on the Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science, IUCAF.

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## Working Group Spotlight

This month, Richard Schilizzi, Ken Kellermann and Richard Wielebinski present a report from the *Working Group on Historical Radio Astronomy*, September 2017.

### ***Purpose of the WG***

The WG was first established in 2003 as an IAU WG, but since the URSI GASS in Beijing in 2014 it is a joint WG of the IAU and URSI. Its aims are to i) maintain an ongoing bibliography of publications relevant to the history of radio astronomy, ii) document and preserve surviving historically-significant radio telescopes and associated instrumentation, and iii) document the careers of deceased radio astronomers in biographical memoirs.

The WG has 41 members at the moment, amongst whom are 14 “national reporters” responsible for keeping track of developments of relevance to the WG in their respective countries or regions. The WG is completely open for anyone to join; please contact any of the above if you are interested.

### ***Publications and research***

Ten books dealing with the history of radio astronomy have been published since 2013 including

Baars	<i>International Radio Telescope Projects – a Life among Their Designers, Builders and Users</i>
Goss	<i>Making Waves, the Story of Ruby-Payne Scott. Australian Pioneer of Radio Astronomy</i>
Orchiston	<i>Exploring the History of New Zealand Astronomy</i>
Schwartz & Zensus	<i>History of MPIfR (in German)</i>
Elbers	<i>The Rise of Radio Astronomy in the Netherlands</i>
Goss, Morris, Sheshadri	<i>Radio Astronomers at Sea</i>
Robertson	<i>John Bolton &amp; a New Window on the Universe</i>
Baars & Kärcher	<i>Radio Telescope Reflectors – Historical Development of Design and Construction</i>
Nakamura & Orchiston	<i>The Emergence of Astrophysics in Asia</i>
Frater, Goss, & Wendt	<i>Four Pillars of Radio Astronomy</i>

A total of twenty-nine papers have been published in various places: Journal of Astronomical History and Heritage, Bulletin of the Astronomical Society of India, Nancius Hambugenisis, Bibliographical Encyclopedia of Astronomers and the URSI Bulletin.

Presentations on historical topics were given in fifteen conferences from 2014 to 2017 including

2014	50 <sup>th</sup> Anniversary of Medicina Northern Cross
2015	JIVE-ERIC Inaugural Symposium
	IAU Symposium on Extragalactic Jets
	The Golden Years of Radio Astronomy, IAU GA
2016	A Workshop on the History of Canadian Radio Astronomy
	All-Wave Astronomy, Shklovsky-100
	Problems of Modern Astronomy – I.S. Shklovsky Centennial Conference
	Innovation & Discovery in Radio Astronomy - A Celebration of the Career of Ron Ekers
	Sleepest: Celebrating Bruce Slee’s Seventy Years in Radio Astronomy
	1 <sup>st</sup> Pietro Barachi Conference on Italy-Australia Radio Astronomy
2017	Black Hole Astrophysics with VLBI: Past, Present and Future – Celebration of the Scientific Career of Makoto Inoue
	Ginzburg Centennial Conference on Physics
	Looking Back and Ahead - a Mini-Symposium in Honour of Wim Brouw
	Fred Lo Science Symposium
	Radio Interferometry: History and Lessons Learnt, URSI GASS

### ***Future activities***

A 3-hour session on Historical Radio Astronomy is planned on 24 August 2018 during the IAU GA in Vienna. The topic will be Single dishes: history and lessons learnt.

Activity will continue on the Jansky site restoration and historical landmark.

A number of books are in preparation including

Orchiston, Sullivan and Robertson	<i>The Foundations of Australian Radio Astronomy (2018)</i>
Goss, Ekers, Hooker	<i>From the Sun to the Cosmos, J. L. Pawsey</i>
Kellermann, Bouton, Brandt	<i>Open Skies</i>
Jarrell, Wall, Griffen, Robishaw	<i>Canadian Radio Astronomy</i>
Schwartz, Zensus	<i>History of MPIfR (English translation)</i>
Schilizzi, Ekers, Hall	<i>History of the Square Kilometre Array 1993-2012</i>
Dickman, Vanden Bout	<i>Construction of the Atacama Large Millimeter - Submillimeter Array</i>

### **WGHRA Website**

The WG website <http://rahist.nrao.edu/> is a repository of a considerable amount of historical material including contributions to the IAU Triennial Reports for 2006, 2009, 2012, and 2015; the presentations on the history of radio interferometers at URSI GASS 2017; the report on WG activities at the Commission J business session at URSI GASS 2017; a list of Grote Reber Medalists; biographical memoirs of deceased radio astronomers; related resources; and access to the NRAO/AUI archives (<http://jump2.nrao.edu/dbtw-wpd/textbase/archivesearch.htm>).

Please contact Ken Kellermann ([kkellerm@nrao.edu](mailto:kkellerm@nrao.edu)) at any time if you have additional material to include on the website.

*Submitted by R. Schilizzi*

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### **Photo from the Field**

To close the Newsletter each month I'd like to include an interesting photograph of radio astronomy field activities showcasing instruments and researchers. If you have an interesting photograph that you don't mind sharing with others in the public domain I encourage you to please send a copy to me along with a brief caption and the person's name to whom I should credit.

*Submitted by R. Bradley*

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