

REPORT ON THE RADIONET3 NETWORKING ACTIVITY

TITLE: EXPLORING THE LOW-FREQUENCY RADIO SKY IN THE SKA ERA

A SYMPOSIUM ON LOW-FREQUENCY RADIO ASTRONOMY ORGANIZED AS PART OF THE 2014 EUROPEAN WEEK OF ASTRONOMY AND SPACE SCIENCE

DATE: *30 JUNE – 01 JULY 2014* **TIME:** ALL DAY

LOCATION: *GENEVA, SWITZERLAND*

MEETING WEBPAGE http://eas.unige.ch/EWASS2014/session_display.jsp?id=S9

HOST INSTITUTE: *International Conference Centre Geneva (CICG)*

PARTICIPANTS NO: *80*

MAIN LEADER: *ASTRON*

REPORT:

1. Agenda of the meeting

The final programme for the workshop is reproduced in its entirety in Appendix A. The abstracts for all the presentations are available from the conference website (https://events.kuoni-dmc.com/ei3/images/EWASS14/EWASS_Abstract/Abstracts_2014/index.htm).

2. Scientific Summary

The Symposium “Exploring the Low-frequency Radio Sky in the SKA Era” was held in Geneva, Switzerland from 30 June - 01 July 2014 as part of the 2014 European Week of Astronomy and Space Science. This two day Symposium brought together approximately 40 members of the low-frequency radio community from all over the world including Europe, Australia, South Africa, India, and the US. The program included a wide range of science topics as well as technical updates from all the currently operating low-frequency instruments.

Day 1 of the Symposium kicked off with a session on the newest generation of low-frequency radio facilities LOFAR, MWA, and the LWA. Representatives for each of these observatories provided updates on the current observing capabilities as well as some recent exciting science highlights. The day continued with two sessions on extragalactic science at low radio frequencies and covered topics ranging from large, all-sky surveys to cluster relics and halos, AGN, and the Epoch of Reionization.

On Day 2, the meeting opened with updates on the status of low-frequency observing with the JVLA by Rick Perley and the GMRT by Yashwant Gupta. SKA Science Director Robert Braun concluded the instrumentation session with a look ahead to the low-frequency capabilities of the SKA. The remainder of the second day was filled with a wide variety of presentations on galactic science, pulsar studies, transient surveys, and solar studies.

Our original ambition in organizing the Symposium was to bring together a truly representative subset of the international low-frequency radio community and in this regard the meeting was an unqualified success. The relatively modest size of the audience allowed for a fairly informal atmosphere with many questions and discussion throughout the course of the meeting. In addition to the formal presentations, a number of ideas for scientific and commissioning collaborations arose over the course of the two days. Bringing researchers together for this Symposium from groups outside the EU such as Australia, South Africa, India, and the US were essential to the success of the meeting and would not have been possible without RadioNet3 support.

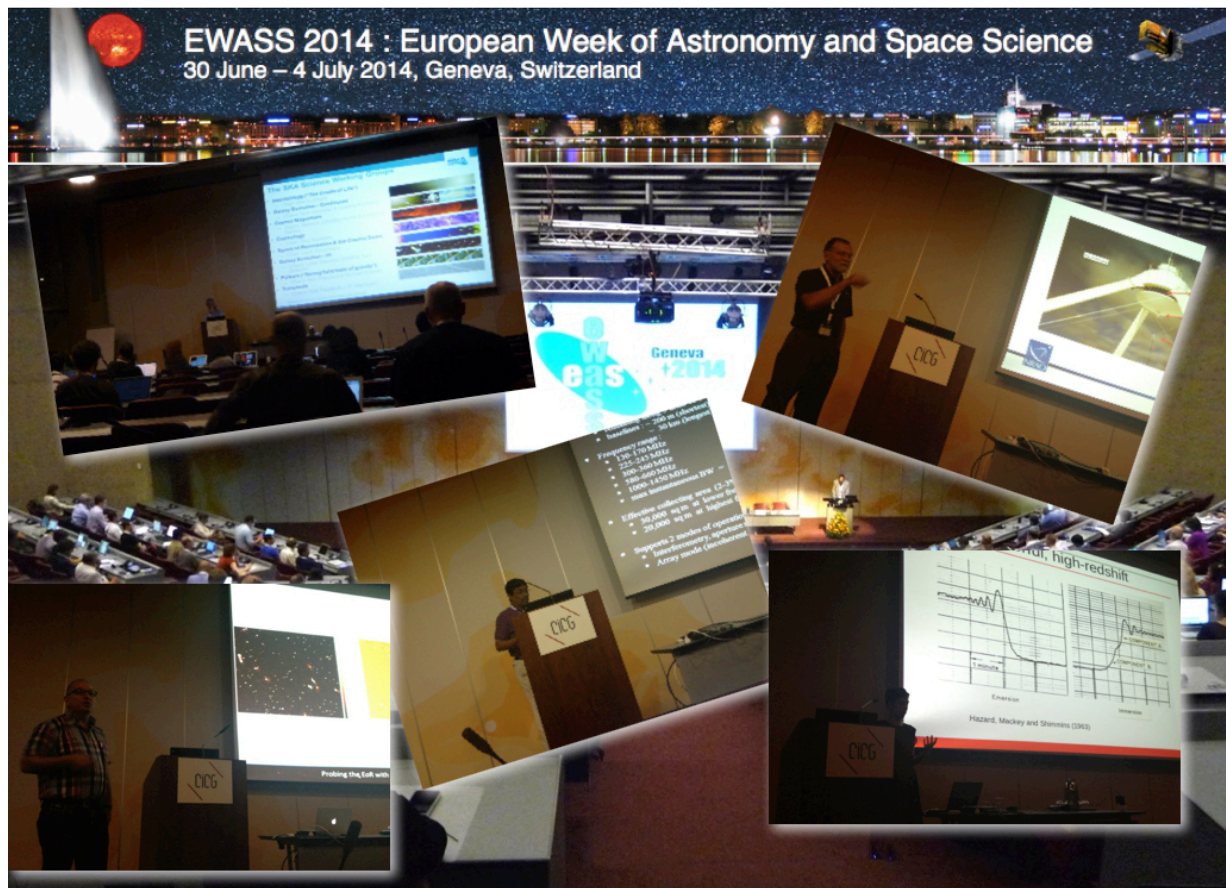
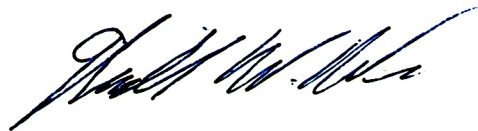


Figure 1: A montage of some of the presentations from the 2 day Symposium held in Geneva, Switzerland from 30 June – 01 July 2014 as part of the annual EWASS 2014 conference.

3. Attendance list (incl. participant names, affiliation and country) signed by the participants and confirmed by the organizer

The Symposium was reasonably well attended. The daily audience over the two days was on the order of 30-40 participants. There were a total of 80 registered participants as determined by the EWASS organizers. These participants represented 18 different countries and had a gender balance of approximately 20%. The full list of registered participants including names and affiliations is given below in Appendix B.

Organizer signature:



(Michael Wise)

4. Financial Report / RadioNet3 contribution

The entirety of the RadioNet3 funding was used to support travel costs for some of the invited speakers. A breakdown of the participants and the level of support is collected here.

First Name	Family Name	Institute	Country	Paid fee
Rick	Perley	National Radio Astronomy Observatory	USA	1400 euros
Randall	Wayth	International Centre for Radio Astronomy Research	AU	700 euros
Gregg	Hallinan	Caltech	USA	700 euros
Yashwant	Gupta	Tata Institute of Fundamental Research	India	700 euros

5. Conference Proceedings and Web page

No conference proceedings are planned for the workshop. The conference website can be found here:

http://eas.unige.ch/EWASS2014/session_display.jsp?id=S9

Appendix A. Programme

Monday, 30 June 2014

10:30 - 11:00	Coffee break
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Session I: Current and Future Instruments (Chair - M.Wise)

11:00 - 11:30	George Heald	<i>LOFAR's Multi-tiered View of the Northern Sky (Invited)</i>
11:30 - 12:00	Randall Wayth	<i>The Murchison Widefield Array (MWA): Overview and Key Science (Invited)</i>
12:00 - 12:30	Tracy Clarke	<i>Science with the Long Wavelength Array Stations (Invited)</i>

12:30 - 14:00	Lunch break
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Session II: Extragalactic Science I (Chair - T. Clarke)

14:00 - 14:30	Natasha Hurley-Walker	<i>Extragalactic Science at Low Frequency (Invited)</i>
14:30 - 14:45	Elizabeth Mahoney	<i>The Lockman Hole Project: a Multi-frequency Study of the Faint Radio Population down to 60 MHz</i>
14:45 - 15:15	Rossella Cassano	<i>Radio Halos in Galaxy Clusters (Invited)</i>
15:15 - 15:30	Aleksandar Shulevski	<i>Archeology with LOFAR: radio relics and AGN deep time</i>

15:30 - 16:00	Coffee break
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Session III: Extragalactic Science II (Chair - R. Y. Gupta)

16:00 - 16:30	Saleem Zaroubi	<i>Upper limit on the Epoch of Reionization from LOFAR (invited)</i>
16:30 - 16:45	Ajinkya Patil	<i>The Epoch of Reionization with LOFAR: current results and predictions</i>
16:45 - 17:00	Rosita Paladino	<i>LOFAR observations of Nearby Galaxies</i>
17:00 - 17:15	Jean-Luc Starck	<i>LOFAR and SKA Sparse Image Reconstruction</i>
17:15 - 17:30	Simon Johnston	<i>Science with the Australian SKA Pathfinder (ASKAP)</i>
17:30	Day 1 of Symposium Concludes	

Tuesday, 1 July 2014

10:30 - 11:00	Coffee break
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Session IV: Current and Future Instruments II (Chair - M. Wise)

11:00 - 11:30	Rick Perley	<i>The Jansky Very Large Array's New Low-Band System (Invited)</i>
11:30 - 12:00	Yashwant Gupta	<i>The Upgraded Giant Metre-wave Radio Telescope (Invited)</i>
12:00 - 12:30	Robert Braun	<i>Science Capabilities of the Square Kilometre Array (Invited)</i>

12:30 - 14:00	Lunch break
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Session V: Galactic Science (Chair - R. Morganti)

14:00 - 14:30	Namir Kassim	<i>Galactic Science at Low Frequency (Invited)</i>
14:30 - 14:45	Tesla Jeltema	<i>Dark Matter Indirect Detection with Radio Observations of Clusters</i>
14:45 - 15:00	Carmen Toribio	<i>Radio Recombination Line studies on M81/M82 from LOFAR observations</i>
15:00 - 15:30	Joeri van Leeuwen	<i>Where the Lighthouse Shines Most Brightly - Pulsar Surveying at Low Frequency (invited)</i>

15:30 - 16:00	Coffee break
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Session VI: Transients and Solar Science (Chair - T. Clarke)

16:00 - 16:30	Gregg Hallinan	<i>Time Domain Science at Low Frequency (Invited)</i>
16:30 - 16:45	David Kaplan	<i>Finding Radio Transients with the Murchison Widefield Array</i>
16:45 - 17:15	Peter Gallagher	<i>Solar Science at Low Frequency (Invited)</i>
17:15 - 17:30	David Herne	<i>The Southern, Mid-latitude Ionosphere and Low-Frequency Radio Astronomy</i>
17:30	Day 2 of Symposium Concludes	

Poster Presentations

	Alla Miroshnichenko	<i>Luminosity ratios of two types of steep-spectrum sources</i>
	Sho Nakamura	<i>A galactic magnetism with Three Dimensional MHD Simulations: Effects of Spiral Arms</i>
	Sumana Nandi	<i>A red quasar with episodic jet activity</i>
	Mamta Pandey-Pommier	<i>Non-thermal emission in CLASH lensing clusters</i>

Appendix B. Participants List

Last Name	First Name	Organization	Country	Email Address
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