



Newsletter October 2014

RadioNet3 Newsletter

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Deadline for RadioNet3 funding of conferences, workshops, and schools

The deadline of the next RadioNet3 call to receive support for conferences, workshops and schools is the 15th of November 2014.

The application should include an outline of the event, the anticipated number of participants, and the budget request. The formless application can be send to Tiziana Venturi via email (tventuri [] ira.inaf.it).

A general rule of thumb for the budget is to spend at least 1/3 of the allocated money to support participants (travel, accommodation, and waiving conference fees). No more than 2/3 should be used for organisational costs. Note that generally only participants from EU and associated countries can be supported.

More information can be found via http://www.radionet-eu.org/radionet3wiki/doku.php?
id=na:outreach:step by step

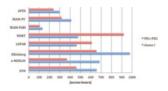
ParselTongue 2.1 a new software release - RadioNet3

ParselTongue is a Python interface to the classic AIPS task-based data reduction packages. ParselTongue allows scripting AIPS with a modern programming language, making complex automated data reduction possible. It allows running AIPS tasks, access AIPS headers, and extension tables from Python. In addition, provides full access to the AIPS UV visibilities. The excellent support for today's standards in Python facilitates the development of powerful pipelines and improves the efficiency and reliability of radio-data reduction. The most important ways through which this is achieved are exploiting data parallelism and avoiding recalculation of data products that have not changed. The new ParselTongue release was issued by the RadioNet3-Joined Research Activity-HILADO. The new release allows for parallel execution of AIPS tasks and has provisions for recalculation analysis.

http://www.jive.nl/jivewiki/doku.php?id=parseltonque:parseltonque

RadioNet3 has already provided 3600 hours access to the radio sky - Transnational access programme (TNA)

The TNA programme offers the entire European astronomical community smooth access to the radio sky and provides a base to fully explore the capabilities of the radiotelescopes and arrays in Europe. From the beginning of the project, the TNA programme has delivered about 3600 hours of observing time of the radio sky and supported 161 individual projects. The overview of the individual facilities and their proposed and

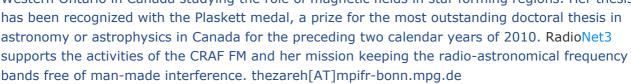


provided transnational access is shown in the figure. (DoW (blue) versus red 2012- mid 2014).

RadioNet3 – TNA programme contributed to the deepest images with the LOFAR low-band system - van Weeren R.J., et al. published in the Astrophysical Journal 2014 the source counts and ultra-steep spectrum sources of the Bootes and 3C 295 fields. The images made at 34, 46, and 62 MHz are amongst the deepest images ever obtained in this frequency range. In total, between 300 and 400 sources have been detected in each of these images, covering an area of 17 to 52 sq. deg. From the radio catalogues the authors derive Euclidean-normalized differential source counts. The 62 MHz source counts agree with previously published GMRT 153 MHz and VLA 74 MHz differential source counts. A spectral index scaling of -0.45 is required to match the LOFAR 34 MHz source counts. This result is in agreement with source counts from the 38 MHz 8C survey, indicating that the average spectral index of radio sources flattens towards lower frequencies. Using spectral indices between 62 MHz, 153 MHz and 1.4 GHz to select ultra-steep spectrum (a < -1.1) radio sources in the Bootes field and cross-correlating these with optical and infrared catalogues showed that most of these ultra-steep spectrum sources are located in the redshift range of 0.7 to 2.5.

New CRAF Frequency Manager Talayeh Hezareh -- RadioNet 3 Networking Activities

The new CRAF Frequency Manager Talayeh Hezareh started her position on the 15th of March 2014 working at the Max-Planck Institute for Radio astronomy (MPIfR) in Bonn and will safeguard "our" radio sky for fundamental research. Before she took over her new responsibilities she worked as a "Alexander von Humboldt" research fellow at the MPIfR. She did her PhD in astrophysics at the University of Western Ontario in Canada studying the role of magnetic fields in star forming regions. Her thesis has been recognized with the Plaskett medal, a prize for the most outstanding doctoral thesis in



26 conferences, workshops, and schools received support by RadioNet3 during June 2013 - July 2014 - Networking Activities

The RadioNet3 networking activities (NA) supported, in the last year alone, 26 events such as conferences, scientific and technical workshops, and schools. The NA-Science Working Group stimulates knowledge transfer of scientific results and supported 16 conferences. The NA-New-Skills work package equips astronomers to exploit current and future radio astronomy facilities and supported in total 7 schools and workshops and the Young European Radio Astronomers (YERAC) conference. NA-MARCUs supports user visits to the seven nodes of the EU ARC network and 3 technical workshops. NA-ERATec fosters the collaboration for the development and operations of radio astronomy instruments in Europe, promoting interactions among engineers and scientists by organizing 2 technical workshops. More than 1500 participants attended these events of which about 70% of the participants came from Institutes situated in Europe. The attendance of participants from South Africa and Australia has considerably increased over the years due to the fact that the SKA receives more and more awareness in the astronomical community.

The most attended event supported by RadioNet3 was the SKA conference Advancing Astrophysics

with the Square Kilometre Array in Giardini Naxos, IT, 8-13 June 2014. One of the main aims of this meeting was to facilitate the publication of a new, updated science book, which will be relevant to the current astrophysical. More information about the conference and the scientific presentations can be found: https://indico.skatelescope.org/conferenceDisplay.py?ovw=True&confId=270

RadioNet3 was at EWASS in Geneva - RadioNet3 supported two symposia and organised a booth at the European week of astronomy and Space Science in July 2014. During the week the work of RadioNet3 has been presented at a special booth and participants of EWASS have been invited to a memorable event at the booth on Wednesday morning (see https://twitter.com/hashtag/ewass). The two supported symposia provided a good overview of the current status and science exploration of ALMA and the SKA. More

information and the presentations of the individual symposia can be found via: Exploring the Low-frequency Radio Sky in the SKA Era http://eas.unige.ch/EWASS2014/session_display.jsp?id=S9 mm/submm astronomy in the ALMA era https://events.kuoni-dmc.com/ei3/images/EWASS14/Program/S10.htm



Gathering the youth at Torun Centre for Astronomy hosting the 44th Young European Radio Astronomers Conference in

September 2014. This year YEARC has been hosted for the 3rd time in Poland, bring together young radio astronomers working in European institution, observatories, laboratories and universities in order to provide them with early opportunities for trans-border interactions with "future" colleagues and collaborators. The conference program covered a broad range of scientific topics such as organic molecules or AGN physics and also touched on technical aspects of VLBI observations. The full program of the YEARC can be found via: http://yerac2014.astro.uni.torun.pl/

Upcoming meeting supported by RadioNet3

The 12th European VLBI Network Symposium and Users Meeting will be held from 7th to 10th of October in Cagliari (Italy). The latest scientific results and technical developments from VLBI, and, in particular, e-VLBI and space-VLBI (RadioAstron) results will be reported. The timing of this meeting coincides with the first successful observational tests of the Sardinia Radio Telescopes within the EVN, and with a



number of results from new and upgraded radio facilities around the globe, such as e-MERLIN, ALMA, and the SKA pathfinders. This meeting will also incorporate the EVN Users meeting.

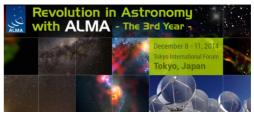
LINK: http://evn2014.oa-cagliari.inaf.it/EVN2014/

The International VLBI Technology Workshops have evolved from the highly successful 10-year series of International e-VLBI workshops. The expanded scope of the technology workshops aims to encompass all areas of hardware or software development relevant to VLBI. The third workshop in this series will feature two



days of "traditional" VLBI topics, such as receivers, digital backends, recording equipment, and etransport. LINK: http://www.jive.nl/ivtw2014/

impressive and scientifically compelling results as the most powerful mm/submm interferometer in the world. Held in central Tokyo, the aim of this four day conference is to highlight the most recent science results from ALMA obtained during the first three years of science operations, and to motivate future collaboration among researchers around the world. The science topic includes all fields of astronomy;



cosmology and galaxies in the distant universe, nearby galaxies and the Galactic Center, ISM and star formation in our own galaxy, astrochemistry, circumstellar disks, exoplanets, solar system, stellar evolution and the Sun. LINK: http://www.almasc2014.jp/

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