

**RATT Post-Doctoral Research  
Fellowships  
Centre for Radio Astronomy  
Techniques and Technologies  
(RATT), Rhodes University**

**Closing date for applications: 01  
August 2012**

Rhodes University, Grahamstown, together with the SKA South Africa Project, is calling for applications for four post-doctoral fellowships in the field of radio astronomical calibration and imaging algorithms. Rhodes University has established the Centre for Radio Astronomy Techniques and Technologies (RATT - <http://www.scifac.ru.ac.za/ratt>) based around the SKA Research Chair in RATT held by Prof Oleg Smirnov.

In collaboration with the Radio Astronomy Research Group (RARG) of the MeerKAT project, RATT will conduct research into novel radio astronomy calibration, imaging, data analysis algorithms, software and techniques that are urgently required by the next generation of radio telescopes and by the science they are designed to deliver.

We are looking for two kinds of candidates: radio astronomers with a strong interest in techniques, algorithms and software, or mathematicians and/or signal processing specialists with a strong interest in radio astronomy. The positions thus require a PhD in one of the related disciplines (astronomy, astrophysics, signal processing, mathematics, applied mathematics).

**The ideal candidates will have some experience of dealing with radio interferometric data, will be familiar with current data reduction software packages and methods, will have proven software development skills, and will have a strong interest in the development of new calibration techniques, and the applications of these to drive new science with current and future observatories.**

**The candidates will be able to (and will be expected to) spend a significant fraction of their time on their own research projects. Collaboration with other institutions world-wide, and participation in observational programs with leading radio observatories (EVLA, LOFAR, E-MERLIN, GMRT, WSRT, ATCA, EVN, ALMA, ASKAP, etc.) will be essential and encouraged, as will collaboration with groups at South African universities that are actively involved in large surveys and projects using these instruments.**

**Two of the positions will be based at RATT, Rhodes University, Grahamstown, and two at RARG at the MeerKAT Project Office, Cape Town.**

**In addition to their own research, the RATT-based fellows will be expected to supervise and co-supervise PhD and MSc students at Rhodes.**

**RARG-based fellows will be expected, in addition to their own research, to closely collaborate with the MeerKAT Science Processing**

**(SP) and Commissioning teams on specific projects involving MeerKAT commissioning and KAT-7/MeerKAT early science, and to contribute their expertise to algorithm development for the SP pipeline carried out by the SP team. Apart from the different emphasis and physical location, the positions will have otherwise identical conditions.**

**The value of each fellowship is R320 000 per annum, tax free. The appointments are for two years, with a one-year extension**

subject to satisfactory progress. Equipment and travel funding will be available.

Interested candidates should submit a CV, bibliography, brief summary of research, and three letters of recommendation by August 1, 2012.

Applications will start to be considered from that date until the positions are filled; the positions could start as soon as October 12012.

**Inquiries, applications and letters of recommendation should be sent to Prof Oleg Smirnov ( [o.smirnov@ru.ac.za](mailto:o.smirnov@ru.ac.za) ).**

**Please see**

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