



RHODES UNIVERSITY

Where leaders learn

**Centre For Radio Astronomy Techniques & Technologies /
Department Of Physics & Electronics**

The Rhodes University Centre for Radio Astronomy Techniques and Technologies (RATT) invites high-flying students looking to get involved in radio astronomy, MeerKAT and the SKA

to apply for **postgraduate scholarships** for 2016.

Closing date for applications: 31 October 2015.

The Square Kilometre Array is coming to Africa – how would you like to be involved in one of the biggest projects in science? The SKA site bid was only the beginning: designing the SKA and making it work will be an even bigger hurdle. Before we can take full advantage of the SKA and its precursor instruments – most notably MeerKAT – we still need to do a great deal of research into data processing algorithms, novel calibration & imaging techniques, and innovative observational methods.

Rhodes University has established the Centre for Radio Astronomy Techniques and Technologies (<http://scifac.ru.ac.za/ratt>), based around the SKA Research Chair in RATT, with the aim of furthering research into these topics. We have extensive collaborations with leading international radio astronomy groups, we are closely involved with the MeerKAT project and the KAT-7 and C-BASS telescopes now operational in the Karoo, and we expect to play a large role in the design and development of the SKA. Our activities include algorithm design, software implementation, development of mathematical methods and frameworks for use in radio astronomy, and processing of real-life observational data from existing radio telescopes. We have research projects of various scope and level available to suit students with a variety of aptitudes, from low-level software and algorithm work, to high-level mathematics and physics. Applicants should have a strong academic record in one or preferably more of the following subjects:

- computing science,
- mathematics and/or applied mathematics,
- physics,
- statistics,
- signal processing.

Scholarships are being made available for 2016, funded at the following levels:

- Honours: R95 000 p.a.
- Masters: R92 000 p.a., plus R20 000 equipment grant and R16 000 travel grant
- Doctoral: R117 000 p.a., plus R30 000 equipment grant and R21 000 travel grant

Contact: Prof O. Smirnov, o.smirnov@ru.ac.za.

Applicants should prepare a covering letter indicating intended subject and degree course of study; detailed Curriculum Vitae; full certified academic transcript, and details of three referees (including working email addresses).

Foreign citizens should be aware that first priority will be given to South African candidates, followed by candidates from SKA Africa partner countries (Botswana, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia, Zambia), followed by exceptional candidates from the rest of the world.