



POST-DOCTORAL FELLOWSHIPS AT RATT & SOUTH AFRICAN RADIO ASTRONOMY OBSERVATORY

The Rhodes University Centre for Radio Astronomy Techniques & Technologies (RATT), together with the South African Radio Astronomy Observatory (SARAO), invites applications for **postdoctoral fellowships** in **commissioning and science verification of the MeerKAT Extension (MeerKAT+), detection and multiwavelength follow-up of radio transients**, as well as **radio astronomy techniques & technologies**.

In 2012, Rhodes University established RATT based around the SARAO Research Chair held by Distinguished Professor Oleg Smirnov. RATT has since grown into one of the leading techniques and observational radio astronomy groups in the world, and works in close collaboration with the Radio Astronomy Research Group (RARG) of SARAO. SARAO has constructed and operates the MeerKAT radio telescope. The MeerKAT+ project is adding 14 dishes to the existing MeerKAT array, significantly improving on its already world-leading sensitivity, resolution and image quality.

The post-doctoral fellowships will be hosted at Rhodes University, as well as at SARAO's Cape Town offices. RATT & RARG conduct research into novel radio astronomy calibration, imaging, data analysis algorithms, software and techniques, participate in (and lead) various MeerKAT observational programs, and will be playing an important role in the commissioning and science verification of MeerKAT+. We are also collaborating with Breakthrough Initiatives on a concerted effort to develop a radio interferometric transient search pipeline (TRON), to apply this to archival MeerKAT data, and to eventually work towards a commensal interferometric transient detection platform.

We are looking to fill two types of postdoctoral positions:

- A fellowship focusing on radio transient surveys with TRON, and multiwavelength follow-up of detected transients. The ideal candidate will have a PhD in astronomy, proven software skills, experience with optical data (preferably with SAAO instruments), and some experience with observational data at other wavelengths. Familiarity with MeerKAT data processing is desirable but not required.
- One or more fellowships focusing on commissioning and science verification of MeerKAT+. The successful candidates will be expected to spend 50% of their time working closely with the Commissioning team at SARAO on MeerKAT-related duties, with the other 50% available to research that aligns with the core mission of RARG and RATT. The ideal candidate will have a PhD in astronomy, proven software skills, solid experience working with MeerKAT data, and a strong interest in the development of data reduction pipelines and techniques.

The value of the fellowships is fixed at the standard SARAO post-doctoral bursary level, which (as of 2026) is ZAR R478,826, tax-free, and adjusted for inflation annually. Additional equipment and travel funding will be available. The appointment is for two years, with a one-year extension subject to satisfactory progress.

Interested candidates should submit a CV, bibliography, a brief summary of research, and ask for three letters of recommendation to be sent separately by **31 October 2025**. Applications will start to be considered from that date until the positions are filled. Inquiries, applications and letters of recommendation should be sent to

applications@ratt.center.

For further information on RATT and SARAO, see <https://ratt.center> and <https://sarao.ac.za>.