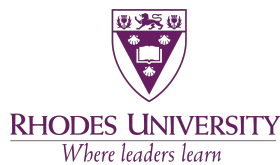


# Postgraduate Student Handbook



Radio Astronomy Techniques & Technologies

Rhodes University  
2025

# 1 Introduction

This is the *Postgraduate Student Handbook* for the *Radio Astronomy Techniques and Technologies* (RATT) group at Rhodes University. It provides information for both new and existing postgraduate students on various aspects of the group and its activities. In addition, it contains useful onboarding and academic information for areas such as presenting, events, education, academic administration and useful resources.

The handbook will be updated on a yearly basis to ensure it provides the latest updates and new information. Therefore, please ensure to download the newest version of this handbook each year.

## 1.1 Repository

This handbook lives in the following repository

<https://github.com/kwazzi-jack/ratt-students/>

All references to the student repository refers to the above link. Moreover, all files given throughout this handbook are given relative to the repository directory `ratt-students/` or the sub-directory `resources/` in the same repository, unless otherwise stated. All resources used in the compilation of this handbook are found within the same directory.

The latest RATT Student Handbook PDF can be downloaded via this link:

<ratt-students/ratt-handbook/ratt-handbook.pdf>

If you wish to compile the document yourself, you only need to have `lualatex` compiler available on your system in combination with `biber` with the following recipe:

```
lualatex ratt-handbook.tex
biber ratt-handbook
lualatex ratt-handbook.tex
```

For any issues in this regard, please refer to the contact details given in section 4.

## **1.2 Research Focus Areas**

- Radio Interferometry Techniques
- Signal Processing Algorithms
- Next-gen Telescope Development

## 2 Events

There are several events that RATT is involved. Some are optional while others are mandatory. Each depends on your field of study, so please investigate whether or not it applies to you if not stated.

### 2.1 SARAQ Scholarship Conference

#### Overview

The SARAQ Scholarship is a *mandatory* conference for all postgraduate students part of SARAQ, which includes RATT students. It happens yearly at the end of November/start of December. The conference brings together all students and researchers involved with radio astronomy and interferometry to provide a platform for research professionals to provide key-note talks and reports, and, most importantly, for students to present on their research progress so far. It is a great opportunity to network with fellow peers and industry experts. Moreover, it is an opportunity for students to practice public speaking and presentation skills.

The location of the conference changes year-to-year, with the details usually provided earlier in the year. It is up to you to ensure that the exact dates and times are noted in your calendar. The exact dates are generally provided earlier in the year. Travel and accommodation costs are covered by SARAQ and organisation is handled by RATT administrative team. Note, the conference is usually five days long and scheduled from Monday to Friday. During the conference, there is several informal and fun activities organised for students to take part in. In previous years, we have had speed-meets, gameboard nights, karaoke and team-building competitions.

#### Presentations

At the conference, each student will create and present a short talk on their work to an academically diverse audience. For guidance on presenting, see section 3. Specific information about the SARAQ conference presentations are given below. Note, any file paths given below are either found in the `resources/` directory in the git repository, or are explicit links to follow.

- The presentation is to be in *PDF* format, unless stated otherwise.
- The slides should be presentable and appropriate for the academic crowd.
- Ensure you include the following logos on the front slide in this order:

Order	Logo	Filename
First	SARAO-NRF	sarao-logo.png
Second	Rhodes University	rhodes-logo-1.png
Last	RATT	ratt-logo.png

These files can be found in `resources/images/logos/`.

The presentation file is normally required to be in *PDF* format, unless stated otherwise. The date for the SARAO conference is given out earlier in the year for students to mark down in their calendars.

### 3 Presentations

### 4 Contacts