



## PhD Scholarships for joint PhDs in Astrophysics for 2024/2025

Funded under the Joint Chair for Computational Astronomy at Stellenbosch University, South Africa and the University of Groningen, the Netherlands.

**DEADLINE: 7<sup>th</sup> August 2024**

The Joint Chair for Computational Astronomy at Stellenbosch University, founded in 2023 is a joint initiative of the Astrophysics Research Group in the Department of Physics in the Faculty of Science and involves collaborators from the faculties of Science, Engineering, the School for Data Science and Computational Thinking, the University of Groningen (Kapteyn Astronomical Institute), and other prestigious partners. In 2024, **Stellenbosch University and the University of Groningen** are poised to launch a **Research Chair of Computational Astronomy**, which will be co-led by **Professor Yin-Zhe Ma** (Stellenbosch) and **Professor Leon Koopmans** (Groningen). This initiative will drive pioneering research endeavours in astronomy and astrophysics, spanning various areas such as the Epoch of Reionization, galaxies and the large-scale structure of the Universe, cosmic microwave background radiation, neutron stars and black holes, neutrino cosmology, and the indirect detection of dark matter. The Research Chair plays a pivotal role in several significant astronomical projects in South Africa, including the MeerKAT telescope, MeerKAT Extended Array, Hydrogen Epoch Reionization Array (HERA), LOFAR telescope, and maintains robust formal collaborations with esteemed projects such as the LSST project (Vera C. Rubin Observatory), SKA Science Working Groups, FAST and Euclid telescope, and CMB Stage-4 survey. Under this initiative, up to **ten** fully-funded Joint-PhD scholarships (four years) are available.

### Criteria

We seek excellent students with a strong background in (astro)physical, engineering, or computer sciences, depending on the specific projects, who desire to obtain a Joint-PhD degree from a top-ranked European and a top-ranked South African university.

To be eligible to apply, a candidate must hold a Master's or equivalent degree in Physics, Astronomy, Engineering, or Computer Science by the starting date of the enrolment (1 January – 31 March 2025). Previous research experience and skills will be important criteria for selection.

English is the common language spoken at both institutes, and proficiency in English is a requirement for acceptance. For more details, see: [UG Admission Criteria](#)

More detailed information on the individual projects offered, supervisors, requirements, and how to apply can be found at: [UG Kapteyn Institute](#) and [SU Astrophysics Group](#)

**APPLICATIONS:** Submit your application [here](#)

**PhD SCHOLARSHIP VALUES and DURATION:**

**Programme structure:** The PhD students will be registered at both SU and UG. The students will defend their PhD thesis at the University of Groningen and obtain a Joint-PhD degree from both universities. All PhD positions are fully funded for four years at the level appropriate for their stays in South Africa (~3 years) and the Netherlands (~1 year).

**Stipend:** In accordance with the regulations while resident at Stellenbosch University and while resident at the University of Groningen. The scholarship value is R 200,000 per year for four consecutive years. During the visiting period at UG (6-12 months), the student will receive an additional monthly top-up to align with the local standard for PhD students in the Netherlands.

**Degree:** Students will be registered at the graduate schools of both universities. They will defend their PhD thesis at Groningen University and receive a joint degree from Groningen University and Stellenbosch University.

**Travel:** Students will be encouraged and supported to present and participate in national and international conferences

**Publication:** Candidates are expected to publish at least two peer-review journal papers by the end of their studies.

**Application deadline and Selection process**

Publication Start Date: 17 June 2024

Application Deadline: 7 August 2024 (at midnight (23:59 SAST/CEST)).

Short-listing of candidates will continue until all positions are filled.

Interviews of shortlisted candidates are expected to start by 26 August 2024.

Final acceptance of the candidates will be completed by early October 2024.

**USEFUL LINKS:**

The Chair and the Astrophysics Group: <https://physics.sun.ac.za/astro/>

The Kapteyn Astronomical Institute: <https://www.rug.nl/research/kapteyn/>

Prof Yin-Zhe Ma:

- <https://orcid.org/0000-0001-8108-0986>
- <https://scholar.google.com/citations?user=2wG1kxwAAAAJ&hl=en>

Prof. Léon Koopmans

- <https://leonkoopmans.com>
- <https://scholar.google.nl/citations?user=0XHHdtkAAAAJ&hl=en>

Joint Degree Program with Groningen:

- <http://www.sun.ac.za/english/research-innovation/Research-Development/joint-degrees-at-stellenbosch-university>
- [http://www.sun.ac.za/english/SUInternational/partnerships-and-networks/partner-institutions-\(2\)](http://www.sun.ac.za/english/SUInternational/partnerships-and-networks/partner-institutions-(2))

**INQUIRIES:** Please contact us via [suugastro@gmail.com](mailto:suugastro@gmail.com)