

## 2024 SA-CERN Programme Excellence MSc/PhD Bursary

Founded in 1954 and based in Geneva, Switzerland, the European Organization for Nuclear Research, known as CERN, is the largest particle physics laboratory in the world. Researchers and postgraduate students from South Africa contribute to the ALICE, ATLAS, and ISOLDE experiments at CERN as well as the Theoretical Physics related to these experiments. Recently, a Technology Innovation pillar has been under development, to support technology development and transfer related to work being done at/for CERN by South African researchers and students. The work being undertaken by South African researchers and postgraduate students takes place under the auspices of the SA-CERN Programme, administered by the NRF-iThemba LABS and supported by the Department of Science & Innovation (DSI). The Programme covers a wide range of disciplines: quantum-field theories, fundamental interactions, nuclear structure, nuclear astrophysics, solid-state physics, LHC data analysis, big data and artificial intelligence, particle detectors, high-performance and high-throughput computing, and digital electronics, amongst many others. SA-CERN Programme graduates have secured faculty positions in South Africa and abroad, founded their own companies, as well as working for the largest and most important corporations in the world.

The SA-CERN Programme seeks outstanding individuals to support their MSc or PhD studies in research related to the CERN facility. The goal is to support a pipeline of representative, excellent postgraduate students to become the next generation of South African academics studying the fundamental nature of the Universe. The SA-CERN Programme Excellence Bursaries will provide the full cost of study support for the **2024** academic year for the duration of studies of successful individuals. This includes sponsorship of research trips to CERN aligned with the projects of selected students.

The bursary is eligible only to those starting their MSc or PhD studies. The Bursary values per annum are as follows:

- MSc level: ~R115 000 - 150 000
- PhD level: ~R102 000 - R177 000

To see a list of potential supervisors and projects, visit <https://sa-cern.tlabs.ac.za/>

### Requirements:

- A proven track record of excellence and clear evidence of outstanding future potential. The ideal candidate should have finished the previous degree with an aggregate of  $\geq 65\%$
- The research project and supervisor must be within the SA-CERN Programme, i.e.
  - project must align with one of the pillars: ALICE, ATLAS, ISOLDE, THEORY or Technology Transfer
  - supervisor must be an SA-CERN member
- Registration at a South African university for **full-time studies** from 2024
- South African citizenship

### To apply:

E-mail the following documents *in one PDF file*

- your up-to-date CV
- copy of your full academic record;

- statement of purpose, which must address your 1) proposed research topic, 2) proposed supervisor;
- copy of your ID document;
- three letters of recommendation (should be sent separately by letter writers);
- copies of any research publications/reports you have (co-)authored; and
- copies of your dissertation from your previous level of study.

to *sacernexcellence@tlabs.ac.za* **by 22 December 2023**

For further information visit <https://sacern.tlabs.ac.za/> or contact *sacernexcellence@tlabs.ac.za*