



Postdoctoral Research Fellowship: Vera C. Rubin Observatory LSST

The South African Astronomical Observatory (SAAO) and the Astronomy Department of the University of Cape Town (UCT) invites applications for a 3 year joint postdoctoral position related to the Vera C. Rubin Observatory's Legacy Survey of Space and Time (LSST), with a strong focus on cataclysmic variables, compact binaries or related objects.

We seek an outstanding individual to join the research group led by Professor David Buckley (SAAO), who is a South African LSST Principal Investigator involved in optical transient follow-up, together with Professor Paul Groot (UCT). The candidate should have observational experience, ideally associated with discoveries or follow-up studies from survey data of the above mentioned target objects. Experience with polarimetric observations and interpretation would also be an advantage. The appointee will become a Junior Affiliate on the South African LSST transient program, involving preparatory work ahead of the main survey, due to start in 2025, including utilizing various LSST software tools.

There will be ample opportunities to lead research programs using the range of SAAO optical/IR facilities, including the 10-m SALT, and to collaborate on the various transient and survey follow-up projects, potentially involving other multi-wavelength facilities (e.g. MeerKAT). Opportunities for involvement in student supervision, teaching and outreach, are also possible, if desired.

Minimum requirements:

- A PhD in astronomy with expertise in accreting binaries
- A good publication record, commensurate with career stage
- Python coding and/or related software development experience

Desirable experience

- Some familiarity or interest in software associated with the LSST (e.g. Operations Simulators, Metrics Analysis Framework)
- Experience with polarimetric observations and associated modelling

The position will be filled once a viable candidate is identified and the appointment should ideally be taken up before 31 March 2024. The salary package is competitive and funding support will be provided for computing resources and travel.

More information concerning the SAAO and UCT may be found at <https://www.sao.ac.za> and <http://www.ast.uct.ac.za/>

Informal enquiries may be directed to Professor David Buckley (DAH.Buckley@saa0.nrf.ac.za) or Professor Paul Groot (paul.groot@uct.ac.za)

Applicants should send a cover letter, including a statement outlining their research and broader interests and experience (no more than 3 pages), their CV plus the contact details of 2 potential references to Ms Linda Tobin (linda@saa0.ac.za) at any time until 31 January 2024.

The filling of this position will be in line with the NRF's Employment Equity Policy.