

Aryabhatta Research Institute of Observational Sciences (ARIES)

Manora Peak, Nainital – 263001

(Advertisement for the post of one Junior Research Fellow)

Applications are invited for the post of JRF (one) for a project entitled: **“A detailed time-resolved and energy-resolved spectro-polarimetric study of GRBs detected by AstroSat CZTI in its first year of operation”**.

The project aims to make a detailed investigation of the spectral, temporal, and polarimetric characteristics of some of the bright gamma-ray bursts (GRBs) using archival data from CZTI instrument of AstroSat. These GRBs are detected by CZTI during its first year of operation and the average polarisation characteristics of these GRBs are already published. Under the proposed work, it is required to make a detailed energy resolved and time resolved spectro-polarimetric study of these GRBs to pin down the elusive prompt emission mechanism.

The selected candidate will work on analysis and interpretation of CZTI data jointly with data from other telescopes and instruments, followed by physical interpretation of the results. Owing to the aggressive timeline of the project, candidates are required to have a strong background in physics (radiative processes, astrophysical processes) and in computing so that they can immediately start contributing to the research.

The work is conducted jointly by ARIES Nainital, Inter University Centre for Astronomy and Astrophysics (IUCAA) Pune and the Indian Institute of Technology (IIT) Bombay.

Educational Qualifications: The candidate must be a postgraduate in M.Sc. (Physics) or equivalent with minimum 60% marks along with NET/GATE qualification. Applicants must have a strong astrophysics background, at least one year of astrophysics research experience, and good coding skills including familiarity with Linux.

.

Desirable: Preference will be given to candidates having relevant experience of high energy data reduction in astronomy and with good knowledge of programming (Python/Heasoft) as required for this specific project.

Fellowship : Rs.31,000 (for JRF) + HRA as per norms (if hostel accommodation is not provided)

Duration: 3 years (First 2 years as JRF and 1 year as SRF subject to satisfactory performance)

How to Apply: Appropriate application addressed to the Principal Investigator along with CV and self-attested copies of the relevant documents of educational qualifications(from matriculation onwards) and relevant experiences should be send to the e-mail address "shashi@aries.res.in" with the subject line "JRF/SRF application for Astrosat Project" latest by 20th December 2021.

Only the shortlisted candidates will be intimated for interview.

Incomplete applications will not be considered. No TA/DA is admissible for candidates appearing for the interview (if conducted in-person).

Dr. Shashi Bhushan Pandey,
Principal Investigator,
9557470888