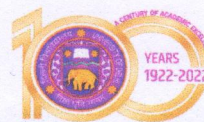




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15/2/24



Date: 10 February, 2024

**S. G. T. B. Khalsa College, University of Delhi**

**PRINCIPAL**

**And**

**Sri Guru Tegh Bahadur  
Khalsa College, Delhi-7**

**Department of Physics & Astrophysics, University of Delhi**

**Recruitment of Junior Research Fellow(s) and Research Associate**

Applications are invited for aforementioned positions in the SERB sponsored project **New Physics Signatures at Small and Large Scales (CRG/2023/008234)** with the following investigators:

*Debajyoti Choudhury (Department of Physics & Astrophysics, DU)*

*Mamta (SGTB Khalsa College, DU)*

*Sukanta Dutta (PI), (SGTB Khalsa College and Delhi School of Analytics, Institution of Eminence, DU)*

**Eligibility:**

**Junior Research Fellow (JRF):**

M.Sc. in Physics and UGC-CSIR-NET(JRF/LS)/GATE/JEST/INSPIRE qualified.

Exposure to Quantum Field Theory and High Energy Physics will be preferable.

Programming skills in Python/ C++/ Fortran will be an added advantage.

Selected JRF would be expected to register for the **Ph.D. Program at Delhi University**.

**Research Associate (RA):**

Ph.D. in Theoretical High Energy /Astroparticle Physics.

Knowledge of Deep Learning Networks will be an added advantage.

Candidates who have submitted their Ph.D. thesis for evaluation can also apply.

**Fellowship and Allowances:** As per the existing guidelines issued by SERB.

**Application Deadline : 20<sup>th</sup> March, 2024**

Interested candidates are requested to email the following documents before the deadline to [New.Physics.Interactions@gmail.com](mailto:New.Physics.Interactions@gmail.com) :

- Curriculum vitae in PDF format with detailed academic record, statement of purpose, research publications (if any), and referee's name, affiliation, email and mobile number.
- Reference letter is to be directly emailed by the referee before the deadline.
- Scanned copy of the marksheet/ degree of last qualifying examination.

**Research Themes:** While these are the topics we focus on, we are not restricted to:

- Unravel the dynamics of the fundamental forces
- Dark matter, Leptogenesis, Baryogenesis, Neutron stars and physics of compact objects
- Non-minimal theory of gravity
- Masses of hadrons using AdS/QCD duality
- Physics potential of the ongoing (LHC) and future (FCC-hh, eh, ee, muon) colliders.
- Particle identification, Data prediction and generation using deep learning network