

Postdoctoral Position at Université Libre de Bruxelles

The Department of Elementary Particle Physics at *Université Libre de Bruxelles* (ULB) invites applications for a **Postdoctoral Research Fellow in high-energy astroparticle physics within the Pierre Auger collaboration**. The department is part of the Inter-University Institute for High Energies (IIHE). We are involved in large international collaborations in astroparticle physics – Pierre Auger Observatory (Argentina), IceCube (South Pole), RNO-G (Greenland), SKA (South Africa, Australia), and in particle physics – CMS (at the LHC), JUNO (China) and Solid (Belgium).

The Pierre Auger Observatory is the largest detector ever built, covering a huge area of 3000 km² in Pampa Amarilla, Argentina and has been operational since 2004. A major upgrade of the Observatory, AugerPrime, was completed in 2023 to be able to answer one of the most difficult questions in astroparticle physics: what is the origin of the most energetic particles in the Universe? The successful candidate is expected to contribute and undertake a variety of activities within the IIHE Auger group. These activities might include:

- Reconstruction and analysis of the first data of the AugerPrime detector using modern techniques and combining information from diverse detectors
- Design studies for the Project for Extreme PeVatrons Searches (PEPS): investigating the feasibility to measure galactic photons at the Pierre Auger site and building a first prototype
- Participating in data-taking shifts for the Pierre Auger Observatory in Malargüe (Argentina)

Required qualifications for the position include: A PhD in physics obtained in the last 5 years; Experience in astroparticle physics, particle physics, and/or cosmic rays is advantageous, but it is not mandatory; Availability and ability to perform data analysis, which include technical tasks like programming, data quality checks and detector design.

The postdoctoral position is for 3 years with a start date of March 2024 or as per agreement. The salary is competitive and includes all social security benefits (information is available upon request). Contributions to teaching and supervision of students are possible, but they are not required. ULB is an equal opportunity employer and especially encourages diversity. Minorities in physics are strongly encouraged to apply.

Application documents and deadline Interested candidates are invited to apply before the 1st of February, 2024. The position will remain open until a suitable candidate is selected. Applications should be emailed to Ioana C. Mariş with the subject “Postdoc Position”. The application should include a comprehensive CV, a letter of motivation stating your interest in the field, the expected contribution to the project and your skills relevant to the completion of the project. The names and the contact information of three potential referees should be provided.

Further information about the position can be obtained from Ioana C. Mariş: Ioana.Maris@ulb.be.

Web site: <http://www.iihe.ac.be/~imaris>