



**UNIVERSITÉ
DE GENÈVE**

FACULTY OF SCIENCE

*Département de Physique Nucléaire and
Corpusculaire (DPNC)*



**Postdoctoral Position Opening
in the Multi-messenger Astronomy Group of the University of Geneva**

The DPNC is a worldwide-recognized center for fundamental research in physics, including Particle Physics, Astroparticle Physics and Cosmology, and provides an international, dynamic, and competitive environment for training of young researchers.

The Multi-messenger Astronomy group at the University of Geneva (UniGE/DPNC) invites applications for a Postdoctoral Research Associate position for fundamental work for the construction of the Cherenkov Telescope Array Observatory (CTAO). CTAO is the next-generation ground-based gamma-ray observatory featuring tens of telescopes located at two sites in both hemispheres (Chile and La Palma, Canary Islands). It will allow probing the high energy cosmic ray sources with unprecedented sensitivity and angular resolution, in the energy domain from tens of GeV to hundreds of TeV.

Job Description

The UniGE/DPNC group leads the **Calibration Pipeline** subsystem of the **CTAO Data Processing and Preservation System (DPPS)** and contributes to the development of the **Data Quality Pipeline**. The DPPS is a software system responsible for the reconstruction, processing, quality monitoring, and preservation of data products of the CTAO. The selected candidate will work on the **development and implementation of the data quality monitoring tools, and related software infrastructure** and on its application to the data analysis of the Large Size Telescopes (LST) of CTAO. The candidate will be integrated in the LST and CTAO International Collaborations.

Required Qualifications

- Experience with Data Quality Monitoring in the domain of (astro)particle physics
- Strong knowledge of Python
- Familiarity with version control systems (Git/GitLab)
- Ph.D. in Physics/Astronomy/Computer Science or related discipline

Preferred Qualifications

- Experience in data analysis in the field of very high-energy gamma-ray astrophysics
- Experience with UI design
- Experience in web applications development
- Experience in the development of complex SaaS applications
- Familiarity with continuous integration and development (CI/CD)



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The successful candidate will be offered an initial 1-year contract, renewable. The salary will depend on the experience of the candidate from postdoc to senior postdoc (Maître Assistant) level.

Preferred date of start: Nov. 2023-Jan. 2024

NB : From a gender perspective, the University encourages applications from the underrepresented gender.

Interested applicants should send a motivation letter, a Curriculum Vitae, at least one reference letter or the contact details of at least a reference person by electronic mail to:

Prof. T. Montaruli teresa.montaruli@unige.ch

Dr. M. Dalchenko mykhailo.dalchenko@unige.ch

Dr. M. Heller matthieu.heller@unige.ch