



FACULTÉ DES SCIENCES

SECTION DE PHYSIQUE
DÉPARTEMENT DE PHYSIQUE NUCLEAIRE ET
CORPUSCULAIRE

Quai Ernest-Ansermet 24 | CH-1211 Genève 4
Tél. 022 702 63 69 Fax 022 781 21 92

UNIVERSITÉ DE GENÈVE

UNIVERSITY OF GENEVA

The Department of Particle Physics (DPNC) at University of Geneva has an opening for a

Ph.D. Student in experimental particle physics

Candidates must have (or about to obtain) a master degree or diploma in physics with appropriate knowledge and experience in experimental Particle Physics to conduct a PhD. The position involves also teaching duties. Experience in modern programming languages such as C++ and/or Python will be valued. The PhD is normally completed in four years. Mastering or willing to learn French will be appreciated. The position is available immediately and will be attributed when an outstanding candidate will have been selected.

The position is on the Mu3e experiment at the Paul Scherrer Institute (PSI) in Villigen (CH). Mu3e will search for the neutrinoless lepton flavor violating muon decay $\mu^+ \rightarrow e^+e^+e^-$ using the world most intense continuous muon beam (see <https://www.psi.ch/de/mu3e>). The Mu3e detector is a concentrate of leading-edge technology and represents a unique opportunity to make an extremely sensitive measurement, that might reveal new physics beyond the Standard Model. First physics data are expected in 2024. At the University of Geneva we are in charge of the scintillating fiber timing detector including the associated front-end electronics. This sub-detector complements the silicon pixel tracker based on the HV-MAPS technology. We are also involved in the simulations of physics processes and preparations for the analysis of first data.

The doctoral work, in the first phase, will focus on simulations studies of the Mu3e detector in preparation for the analysis of first Mu3e data. The successful candidate will also participate in the commissioning of the fiber detector and will be involved in the development of calibration tools for this sub-detector. To complete their curricula, PhD students are also required to attend graduate level classes and participate in seminars.

Candidates should forward at their earliest convenience their application, including curriculum vitae, a transcript of university credits, a motivation letter and three reference letters to:

Mme Liliane Nagy (Liliane.Nagy@unige.ch)
Secrétariat
Département de physique nucléaire et corpusculaire
24, Quai Ernest-Ansermet
CH-1211 Genève 4 SUISSE

Information concerning this position can be obtained from Dr. Alessandro Bravar (Alessandro.Bravar@unige.ch) to whom it is recommended to address an electronic copy of the application.