UNIVERSITÉ
DE GENÈVE
FACULTÉ DES SCIENCES
Département de physique
nucléaire et corpusculaire

The Particle Physics Department at the University of Geneva invites applications for two **PhD Positions** in experimental particle physics. We are looking for exceptional and highly motivated candidates who are eager to explore advanced machine learning (ML) technologies and develop customized ML solutions to advance collider-physics experiments.

The research will focus on evaluating the adaptability of various LHC techniques for future colliders, with emphasis on flavor tagging, jet reconstruction, and particle flow, considering advancements in automated search strategies, foundation models, and other modern data reconstruction techniques. Another key research area is the integrated co-design of software tools alongside the collider and detector design, in alignment with both specific and generic physics objectives.

Eligible PhD candidates should hold or be nearing completion of a master's degree in Particle Physics or a closely related field, with excellent academic performance.

In addition to research, the position includes teaching responsibilities and opportunities to supervise undergraduate students and engage in outreach activities. Doctoral candidates typically complete their program within 4 years. Candidates who do not speak French are encouraged to develop proficiency in the language.

Applications should be sent to Tobias.Golling@unige.ch as a single pdf document comprising a 1-page cover letter, a CV including a publication list, and a 1-2 page research statement. Applicants should arrange for two or more letters of recommendation to be sent by the reference writers to Tobias.Golling@unige.ch. In any correspondence, please use the subject line "MLHEPPhD2025". To ensure full consideration, please submit your application by **June 30, 2025**. The positions are anticipated to commence as early as September 2025. For more information, please contact Tobias.Golling@unige.ch and see related projects here https://github.com/rodem-hep.

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