

Post-doc position on the ATLAS experiment at LPSC Grenoble (France): Dark QCD and ITk

The **ATLAS group at LPSC Grenoble** invites applications for a postdoctoral position in the group. The two-year position offers a competitive salary and is funded by IN2P3.

The search for alternative dark matter (DM) scenarios, such as **dark QCD** models, is generating a growing interest in the community. In some dark QCD models, some stable dark hadron states are DM candidates and there exists a massive mediator particle which can link this dark sector to the SM. The selected candidate would work in collaboration with other group members on dark-hadron searches in Run-3 data with the ATLAS detector at the LHC, using the peculiar characteristics of the associated jets predicted by those models which can contain long-lived particles, and on understanding the complementarity of the various dark-hadron searches.

After a successful commitment to the first upgrade of the ATLAS pixel detector, namely the introduction of IBL, the ATLAS group of LPSC is involved in the phase II upgrade. The current inner tracker will be replaced with a full silicon tracker called **ITk**, which will be made of five layers of pixels and 4 layers of strips, plus several rings in the endcaps. Our main commitment is in the loading and integration of the three outmost layers of pixels (this sub system is called the Outer Barrel). We also have responsibilities in the on-detector services and in the global mechanics. Besides the analysis work, the successful applicant is expected to work a fraction (of up to 50%) of the time on ITk and contribute to our current activities, or possibly to ITk software in case the candidate has relevant prior experience.

Candidates must hold a **Ph.D. in Physics since at most two years** by the starting date, which is foreseen to be at most in **early 2023**, and have research experience in experimental elementary particle physics. Applicants should apply at :

<https://emploi.cnrs.fr/Offres/CDD/UMR5821-CHRVEL-129/Default.aspx>

with their CV and a brief statement of research interests. Letters of recommendation should be sent to Marie-Hélène Genest (genest@lpsc.in2p3.fr). Preference will be given to applications received by **October 20th (the current date stipulated on the site will be postponed)**, but the position will remain open until filled. Informal enquiries are welcome and may be made to Fabienne Ledroit or Marie-Hélène Genest (ledroit@in2p3.fr, genest@lpsc.in2p3.fr).

Contact:

- **Marie-Hélène Genest** (genest@lpsc.in2p3.fr)
- **Fabienne Ledroit** (ledroit@lpsc.in2p3.fr)