

Postdoctoral position (f/m/d) in High-Energy Gamma-ray Astrophysics

November 2021

The “High-Energy gamma-ray astronomy” group at LPNHE and the “High-Energy” group at LUTH are opening a 2-year-long postdoctoral position in experimental and theoretical gamma-ray astrophysics. The postdoctoral researcher will work on time-dependent modeling of blazar jets in order to study the time delays between photons of different energies (spectral lags) that can arise in emission and acceleration mechanisms. These models are essential for the future interpretation of propagation effects such as those due to a possible violation of Lorentz invariance. In parallel to his/her work on modeling, he/she will analyse existing data of blazar flares observed at high and very-high energies (by H.E.S.S., Chandra, RXTE,...) to look for such time delays. He/she will work on the methods to disentangle spectral lags originating from the emission to the ones possibly due to propagation effects due to Lorentz invariance violation. The groups of LPNHE and LUTH have a long expertise in these fields and have been collaborating on these topics for many years. Both groups are members of the H.E.S.S. Collaboration and CTA Consortium.

Profile

Applicants should have their PhD since less than two years, in experimental high-energy gamma-ray astrophysics or in a closely related field. Ideally, the applicants should have a strong expertise in data analysis with Cherenkov telescopes, as well as a good understanding of the physics of AGN. Expertise in X-ray data analysis would be an asset. The applicants should also have good experience in developing software (C++ and python). Finally, the candidates should demonstrate the ability to work in an international research environment, including good English proficiency.

How to apply

Applications must be done using the CNRS recruitment web site:

<https://emploi.cnrs.fr/Offres/CDD/UMR7585-JULBOL-001/Default.aspx>

In addition to filling the forms required on the CNRS web page, the candidate has to prepare (i) a copy of an official ID (passport, identity card), (ii) a copy of the PhD diploma, (iii) an academic curriculum vitae including a list of the most relevant publications, analysis notes, talks given at international conferences and workshops. All these documents have to be sent to the contact persons given below, merged in a single pdf file. The applicants should also arrange so that two recommendation letters are sent before the deadline directly to the contact persons.

It is strongly suggested to contact us before applying to get all necessary information and more details about the position.

Organisation

The successful applicant will work at LPNHE in downtown Paris. He/she will make regular visits to LUTh in Meudon. The postdoctoral researcher will be a member of H.E.S.S. and CTA Collaborations and he/she will participate in the various meetings relevant to his/her activities. He/she will also have the opportunity to participate in conferences to present his/her results. The salary will comply with French regulations and will depend on the seniority of the successful applicant. In any case, the gross monthly salary will be in the range 2200€-2500€.

Deadline for applications

Applications and reference letters must be sent before

Friday 10 December 2021.

Contact information

Questions should be sent by email to J. Bolmont and H.Sol:

Dr. Julien Bolmont

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