Postdoctoral position in high energy astrophysics at the APC laboratory in Paris

Applications are invited for a 2 year postdoctoral position in the High Energy Astrophysics group of the APC laboratory in Paris funded by the UnivEarthS LabEx (<u>www.univearths.fr</u>). The position will be available in September 2020, with a negotiable starting date.

The APC laboratory is a leading institute in particle astrophysics and cosmology and its high-energy group is involved in a wide range of multi-wavelength and multi-messenger experiments. The successful candidate will join the team to strengthen its activities relating to very high energy phenomena in the Galactic Center (GC) both from a point of view of gamma-ray data analysis and cosmic-ray phenomenology.

The study of multi-messenger emissions from the GC offers unprecedented opportunities to learn about activities and interaction of a super-massive black hole with its local environment and its host Galaxy as well as cosmic-ray acceleration and transport at the level of the Galaxy. Our team has a long standing experience in high energy GC astronomy observations from X-ray to gamma-ray and neutrino as well as cosmic accelerators modeling and cosmic-ray transport phenomenology.

The candidate is expected to participate in some of the GC team research projects on CR injection and transport in the central parts of the Galaxy: phenomenological developments of massive CR injection and/or characterization of the associated gamma-ray emission (in the H.E.S.S. and Fermi datasets and in preparation of CTA). In this context, the candidate could participate in the development of analysis methods and tools for CTA.

The candidate should hold a PhD in the field of high energy astrophysics. Experience in high energy astrophysics data analysis (IACTs, Fermi-LAT and/or X-rays), expertise in CR acceleration and transport as well as python programming skills will be valued.

A curriculum vitae, the list of publications, a brief description of research interests and two letters of reference should be sent to Dr. Anne Lemière (<u>alemiere@apc.in2p3.fr</u>) and Dr. Régis Terrier (<u>terrier@apc.in2p3.fr</u>) Applications will be considered until the position is filled.