Postdoctoral appointments in high-energy gamma-ray astrophysics

The Institute for Astro- and Particle Physics invites applications for up to two Postdoctoral Scholars in the field of observational high-energy astrophysics/astroparticle physics for work with the **Fermi Gamma-ray Space Telescope** and/or the H.E.S.S. array of imaging atmospheric Cherenkov telescopes. Fermi is the high-energy gamma-ray observatory in orbit since June 11, 2008, designed for observations of celestial gamma-rays from 20 MeV up to hundreds of GeV. The **High Energy Stereoscopic System (H.E.S.S.)** is an array of imaging atmospheric Cherenkov telescopes operated in the southern hemisphere (Namibia), and sensitive to gamma-rays above hundred GeV. H.E.S.S. is being extended by a central large telescope which will provide a new and unprecedented view on still unexplored energetic phenomena in the gamma-ray sky.

We offer the opportunity to pursue a rigorous research program using two of the foremost capable experiments in high-energy astrophysics. Data are to be analyzed in close collaboration with the Fermi collaboration and/or the European H.E.S.S. consortium. The successful candidate is expected to participate in data reduction, broadband modeling, and scientific interpretation of emission phenomena in the high-energy gamma-ray astrophysics domain. Research shall be focused on one or more of the following topics: diffuse galactic continuum emission; SNR- and stellar wind-driven particle acceleration; diffusive/convective particle transport in regions of high star formation and/or CR storage on cosmological timescales; constituents of the extragalactic gamma-ray background; broadband observations towards new and/or unidentified high-energy sources; gamma-ray sources in the context of multi-messenger observations.

Besides using the aforementioned research facilities, a next-generation Cherenkov Telescope Array (CTA) is being planned, including science case studies, hard- and software component development, and array performance simulations. The candidate has the opportunity to participate in the effort by either R&D, and/or science and performance studies and simulations.

Initial appointments will be made for up to three years. In case of exceptional performance, there is the possibility to enter a career path towards habilitation/assistant professorship. Salary and benefits according to the Austrian university law (Universitätsgesetz 2002).

Requirements:
PhD in astrophysics, preferably high-energy astrophysics or astroparticle physics

Applications - including letter of application, CV, academic record, publication list and the names of up to three persons who will be able to provide information about the applicant - should arrive before **May 8, 2009**, but are considered until the positions are filled.

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