



## **Postdoctoral appointment in high-energy gamma-ray astrophysics**

The Institute for Astro- and Particle Physics invites applications for a Postdoctoral Scholar in the field of observational high-energy astrophysics/astroparticle physics. The candidate should be familiar with analysis- and interpretation aspects of data from one or more contemporary high-energy gamma-ray observatories the institute is involved in: the **Fermi Gamma-ray Space Telescope**, the **H.E.S.S. telescope array**, and/or the **CTA observatory**. 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 five imaging atmospheric Cerenkov telescopes operated in the southern hemisphere (Namibia), and sensitive to gamma-rays from below hundred GeV to about hundred TeV. CTA is the upcoming **Cherenkov Telescope Array**, an observatory which will provide an unprecedented view on energetic phenomena in the very high energy gamma-ray sky from low GeV to PeV energies.

We offer the opportunity to pursue a rigorous research program using the foremost capable experiments in high-energy gamma-ray astrophysics and the opportunity to prepare for data taking and participation in the upcoming CTA observatory. Data are to be analyzed in close collaboration with the Fermi collaboration and/or the 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; shock- and stellar wind-related particle acceleration; diffusive/convective particle transport in regions of high star formation and/or CR storage on cosmological timescales; 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, the next-generation Cherenkov Telescope Array (CTA) is presently under construction. The successful candidate has the opportunity to participate in the effort through either R&D in the FlashCam consortium (building cameras for the Medium Size Telescopes in CTA), and/or science- and performance studies to prepare for data taking and early observations with CTA.

The Postdoctoral Scholar will be required to participate in the institute's teaching and lab activities at the level of 4 teaching hours per week.

Appointment will be made for **up to four years**. Salary and benefits are in accordance with the Austrian university law (UG 2002). A **starting date in September 2016** is anticipated.

### Requirements:

PhD in astrophysics, preferably high-energy astrophysics or astroparticle physics.

Applications, preferably through the [career portal](#) of Innsbruck University, MIP-8867, including letter of application, CV, academic record, publication list or ResearcherID, and the names of up to three persons who will be able to provide an expert opinion about the applicant - should arrive before **June 3, 2016**.

### Contact:

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