

GSI - FAIR Colloquium

Main Lecture Hall (SB1 1.120), 64291 Darmstadt, Planckstraße 1

Tuesday, 12 January, 2016, 16:15 Uhr (Tee ab 15:45)

Pre-colloquium for students at 15:30

Thomas Lohse Humboldt University, Berlin

Gamma Ray Astronomy with H.E.S.S.: Exploring the Violent Universe

The High Energy Stereoscopic System (H.E.S.S.) is a system of imaging Cherenkov telescopes which has opened a new window on the Universe at the upper end of the known electromagnetic spectrum. It detects gamma rays with energies ranging far beyond those accessible in terrestrial laboratories, including the present generation of particle accelerators. These extreme energies are created in the most violent environments known in the Universe, like supernovae or the neighbourhoods of neutron stars and black holes. The new branch of gamma-ray astronomy can shed light on the long-standing puzzle of the origin of cosmic rays, but can also attack fundamental questions connected to particle physics, cosmology and gravity. After a pedagogical introduction and a short general overview, some spectacular results will be discussed which might turn out as golden key to unravel the mystery of cosmic rays in our Galaxy.

Einladende: Silvia Masciocchi

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