**DESY**
Physics Seminar

# Gamma-ray astronomy with H.E.S.S.: the first decade.

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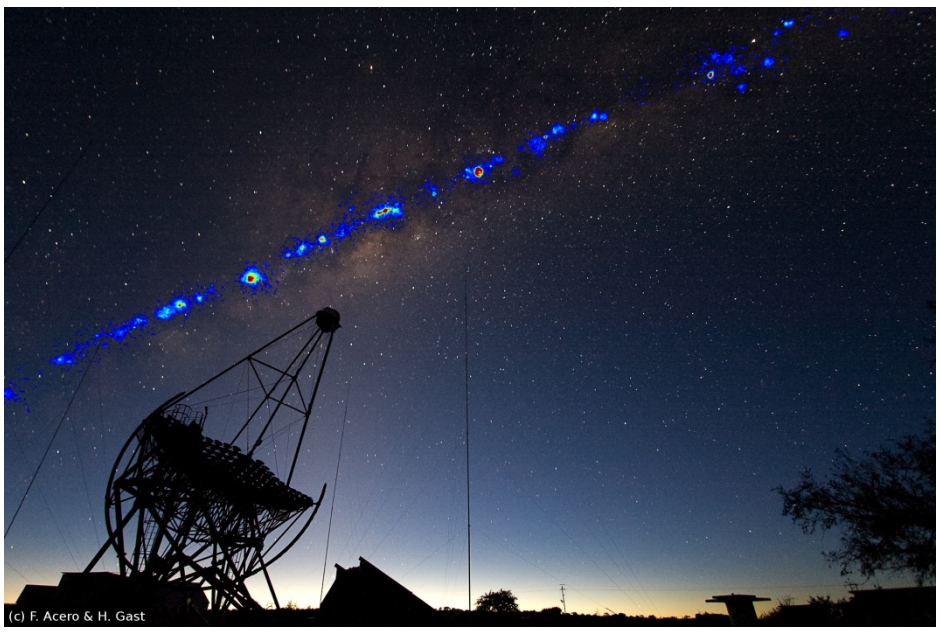
## Tuesday, 12 March 2013, 16:45 h
## Building 2a / Sem.R. 2




In the last decade, very high energy (VHE) gamma ray astronomy – at photon energies of 100 GeV and beyond – has developed in giant steps, with the number of known cosmic VHE gamma ray sources now well over 100. As the first system of large imaging atmospheric Cherenkov telescopes, the High Energy Stereoscopic System – H.E.S.S. – in Namibia has contributed significantly to this development.
The presentation will briefly introduce to Cherenkov technique and the instrument, and then concentrate on the various types of VHE gamma ray sources discovered with H.E.S.S. and on their interpretation. VHE gamma rays cannot be produced in thermal processes; they are created in interactions of high energy particles. Gamma rays trace populations of such particles and allow imaging of the cosmic particle accelerators. One of the major results of H.E.S.S. is that VHE gamma ray emitters are ubiquitous in the Galaxy and beyond; they include supernova remnants, pulsars and pulsar wind nebulae and binary systems, as well as starburst galaxies, radio galaxies and blazars. The recently inaugurated H.E.S.S. II telescope is the largest Cherenkov telescope worldwide, and will make H.E.S.S. even more sensitive.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**