

ASTROPHYSICS SEMINAR

Thursday, 11 June 2009 at 15:00

VHE gamma-rays from AGN with H.E.S.S.: multi-wavelength studies and radiative modeling

Jean-Philippe Lenain
Observatoire de Paris-Meudon

Abstract. With the advent of the current generation of imaging atmospheric Cherenkov telescopes, active galactic nuclei (AGNs) are prime targets for observations of extragalactic sources in the very high energy (VHE; $E > 100\text{GeV}$) domain.

In this seminar, I will present my work within the H.E.S.S. collaboration during my PhD thesis, concerning multi-wavelength (MWL) studies of AGNs and development of radiative models. A synchrotron self-Compton (SSC) model was developed specifically for misaligned blazar-like sources. Interpretation of the VHE gamma-ray emission of M 87, as well as some predictions for Cen A, will be discussed.

I will also present the recent MWL campaign of PKS 2155-304 conducted in July-August 2006, which revealed an extreme variability at VHE. A time-dependent SSC model applied to this rich data set will be discussed, as well as the recent discovery of two AGNs: RGB J0152+017 and Cen A, the latter firmly establishing radio galaxies as a new class of VHE emitters.

Additional Information

The seminars are given in the ISDC "Pavillon" building
Address: ISDC Data Centre for Astrophysics, ch. d'Écogia 16, CH-1290 Versoix
WWW: ISDC Seminars: <http://isdc.unige.ch/?Science+seminars>