



ID de Contribution: 48

Type: **Oral Presentation**

Cosmology and fundamental physics with extragalactic gamma rays

mardi 10 mai 2016 16:45 (15 minutes)

Very high energy gamma rays (VHE, > 100 GeV) propagating over cosmological distances interact with the extragalactic background light (EBL) which is the second most intense background in the Universe after the cosmic microwave background. Observations of spectral features in the VHE band of extragalactic sources related to this energy-dependent absorption process with the H.E.S.S. array of Cherenkov telescopes allow for a unique model independent measurement of the EBL energy distribution, otherwise very difficult to determine.

Second order processes to the propagation of such extragalactic gamma rays can also be used to probe magnetic fields in cosmic voids or to test potential effects violating Lorentz invariance.

Auteur principal: M. LORENTZ, Matthias (Irfu, CEA Saclay)

Orateur: M. LORENTZ, Matthias (Irfu, CEA Saclay)

Classification de Session: Cosmology and astroparticles

Classification de thématique: Cosmology & Astroparticles