

# Gamma-ray bursts: recent results and connections to cosmic ray and neutrino physics

*Monday, 4 June 2012 09:45 (0:45)*

## Abstract content

Gamma-ray bursts have been detected at photon energies up to tens of GeV, and there are reasons to believe that they emit at least up to TeV energies, via leptonic or/and hadronic mechanisms. I review some recent developments in the GeV photon phenomenology in the light of Fermi observations, as well as recent related theoretical work. I discuss then the possibility of accelerating cosmic rays up to the highest energies observed so far, the related emission of high energy neutrinos, and recent observational constraints.

**Primary author(s) :** Prof. MESZAROS, Peter (Pennsylvania State University)

**Presenter(s) :** Prof. MESZAROS, Peter (Pennsylvania State University)

**Session Classification :** Plenaries Monday

**Track Classification :** Particles