



ID de Contribution: 93

Type: POSTER

Blazar flares as the origin of high-energy astrophysical neutrinos?

mardi 9 octobre 2018 10:39 (3 minutes)

The IceCube Collaboration recently announced the detection of a high-energy astrophysical neutrino consistent with arriving from the direction of the blazar TXS 0506+056 during an energetic gamma-ray flare. In light of this finding, we consider the implications for neutrino emission from blazar flares in general. We discuss the likely total contribution of blazar flares to the diffuse neutrino intensity by considering an ensemble of observational constraints. Further, we consider the multi-messenger constraints from single-zone models, showing that neutrino flares must be accompanied by X-ray and gamma-ray emission. Finally, we suggest a two-zone model that can satisfy the X-ray constraints for the 2017 flare of TXS 0506+056, in which the neutrinos are produced via either photomeson or hadronuclear processes.

Auteurs principaux: OIKONOMOU, Foteini (ESO); MURASE, Kohta (Penn State University); PETROPOULOU, Maria (Purdue University)

Orateur: OIKONOMOU, Foteini (ESO)

Classification de Session: POSTER SESSION