XXI International Workshop on Neutrino Telescopes



Contribution ID: 34

Type: Contributed Talk

Searches for Gamma-Ray Counterparts of IceCube Neutrino Events in the AGILE Public Data Archive

Tuesday, September 30, 2025 5:40 PM (20 minutes)

Elena Gasparri (1), Rosa Poggiani (1), Carlotta Pittori (2,3), Fabrizio Lucarelli (2,3), Paolo Giommi (4)

- (1) Department of Physics "E. Fermi", University of Pisa, Italy
- (2) INAF/OAR, Monte Porzio Catone (RM), Italy.
- (3) SSDC/ASI, Roma, Italy
- (4) Associated to Italian Space Agency, ASI, Roma, Italy

The search for gamma ray counterparts of IceCube neutrino events is a key item for understanding the role of blazars as possible sources of cosmic high energy neutrinos. We have searched the counterparts of IceCube neutrinos events in the AGILE gamma-ray satellite public data archive that occurred in the interval 2018-2020.

We present the candidate counterpart sources in the error regions centered on the detected neutrinos and report their light curves and Spectral Energy Distributions, together with the estimates of the gamma ray flux above 100 MeV for the AGILE detections. The possible associations with blazar systems are discussed.

Neutrino Properties

nc

Neutrino Telescopes & Multi-messenger

Selected track

Neutrino Theory & Cosmology

no

Data Science and Detector R&D

no

Authors: Dr GASPARRI, Elena; Prof. POGGIANI, Rosa (University of Pisa); PITTORI, Carlotta (Istituto Nazionale di Fisica Nucleare); LUCARELLI, Fabrizio (INAF-OAR & DESDE); GIOMMI, Paolo (Agenzia Spaziale Italiana)

Presenter: Prof. POGGIANI, Rosa (University of Pisa) **Session Classification:** Neutrino Astrophysics

Track Classification: Neutrino Telescopes & Multi-messenger