



Poster session 2 – Tuesday 5 July

P2.085 **MAGIC gamma-ray telescopes hunting for neutrinos and their sources**

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The discovery of an astrophysical flux of high-energy neutrinos by the IceCube Collaboration marks a major breakthrough in the ongoing search for the origin of cosmic rays. Presumably, the neutrinos, together with gamma rays, result from pion decay, following hadronic interactions of protons accelerated in astrophysical objects to ultra-relativistic energies. So far, the neutrino sky map shows no significant indication of astrophysical sources. Here, we report first results from our follow-up observations of sky regions where IceCube has detected muon tracks from energetic neutrinos using the MAGIC telescopes which are sensitive to gamma rays at TeV energies.

Furthermore, we show that MAGIC has the potential to distinguish air showers induced by tau neutrinos from the background of hadronic showers in the PeV-EeV energy range, employing a novel analysis method to the data obtained with high-zenith angle observations.