

Characterizing High-Energy Neutrino Emission Parameters in Bright Seyfert Galaxies and Quasars

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Observation of high-energy neutrinos from the direction of nearby active galaxy, NGC 1068, was a major step in identifying for the origin of high-energy neutrinos. This observation revealed that high-energy neutrinos originated at the heart of active galaxies which are opaque to gamma-ray emission. The realization that is reinforced by the excess of neutrinos in the direction of NGC 4151, another nearby AGN. Modeling neutrino emission from the core of AGN relies on the multi-wavelength observation of the inner parts of the active galaxy and is challenging due to the uncertainties associated with the absorption of emission in these dense environments. Here, we employ the measured neutrino spectra together with the sub-GeV γ -ray emission measured by the Fermi satellite to break the degeneracy and narrow in on the parameter space of neutrino emission from the coronae of AGN. Our result will help estimating the prospects for identification of additional sources and guide future targeted analyses

Poster prize

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