Workshop on Numerical Multi Messenger Modeling

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Modeling an IceCube blazar candidate sample with AM3

Wednesday 26 February 2025 11:15 (30 minutes)

I discuss recent results of a leptohadronic model applied to a sample of 32 BL Lac objects associated with IceCube high-energy alert events. The model is constrained using multi-wavelength observations as well as optical spectral analyses, which provide valuable information on the source environment. For masquerading BL Lacs, including TXS 0506+056, the model predicts high neutrino fluxes, which can describe well the ten-year IceCube point source flux, and which strongly correlates with the gamma-ray flux. I discuss some physical insights brought by the results and implications for next-generation neutrino searches.

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