

PeV Neutrinos from PKS B-1424 418

Wednesday, 14 September 2016 17:45 (15 minutes)

Recently a potential correlation between the discovery of the IceCube PeV-neutrino event (IC 35) and the outburst phase of the blazar PKS B1424-418 has been reported. In this study, we simulate both the multi-wavelength photon and neutrino emission for this source using a self-consistent one-zone model. After a study on the parameter space we find that the simple hadronic model fails to explain the spectral energy distribution for this source, but a leptonic model with a sub-dominant hadronic component can explain both the photon and the neutrino event. We also show the constraints on the proton to electron ratio and the proton maximum energy, derived from both the multi-wavelength and neutrino channels.

Summary

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