

Multimessenger tests of high-energy neutrino production in blazars

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Blazars host relativistic jets which are considered to be excellent sites for high-energy-cosmic-ray acceleration. In the vicinity of the supermassive black hole and inside the relativistic jet, there exist photon fields which are thought to facilitate high-energy neutrino production. Recently, a number of blazars have been tentatively associated with high-energy neutrinos detected by the IceCube Observatory. Motivated by these observations we have performed multimessenger modelling of these sources and calculated the expected neutrino emission. In this talk, I will present the results of these studies, focussing on PKS 1502+106, which is a flat-spectrum radio quasar at redshift $z \sim 1.838$ possibly associated with the high-energy muon neutrino IC-190730A.

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