

Time dependent searches for point source emissions of Neutrinos with the IceCube Neutrino Observatory

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We performed a set of time dependent and multi-messenger searches for neutrino flaring emissions from astrophysical sources. We present the results of three searches applied to IceCube data measured between April 2008 and April 2015. The most generic search is an un-triggered scan for clustering of track like IceCube events simultaneously in both, time and direction. The second one is a triggered multi-messenger search using Fermi LAT lightcurves to look for coincidence of track like IceCube events and gamma ray flares. A third analysis was carried out with a catalog of periodic X-Ray, and Gamma Ray candidate sources searching for in phase neutrino emission. A development of a framework for monthly monitoring of candidate neutrino sources with the IceCube data will be presented as well.

Summary

Primary author: CHRISTOV, Asen (Universite de Geneve (CH))

Presenter: CHRISTOV, Asen (Universite de Geneve (CH))

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