

Searching for neutrino transients below 1 TeV with IceCube

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What is this contribution about?

We provide a brief summary of recent and upcoming work towards searches for sub-TeV astrophysical transients using IceCube-DeepCore.

Why is it relevant / interesting?

While high energy neutrinos have been used for many transient searches, few have identified notable excesses. New models suggest that a lower energy neutrino flux may be an underutilized channel for these searches.

What have we done?

Using an existing oscillation selection, we have searched for choked jet transients in the sub-TeV sky. We have also updated the selection, improving the physics reach of future analyses.

What is the result?

No significant excess has been observed with the oscillation selection and new analyses using the updated DeepCore selection are ongoing.









