Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Searching for an Excess of Sub-Threshold Neutrino Flares in IceCube Data WILLIAM LUSZCZAK, JIM BRAUN, ALBRECHT KARLE, University of Wisconsin - Madison, THE ICECUBE COLLABORATION COLLABORATION — Recent results from IceCube regarding TXS 0506+056 suggest the presence of neutrino flares with no detectable gamma ray counterpart ("untriggered" neutrino flares). In this talk, we present a new method for fitting for all such flares simultaneously. In addition to being able to detect the presence of untriggered neutrino flares, this method also has the benefit of producing a neutrino flare curve, describing the temporal structure of the neutrino data associated with a particular location on sky. In this talk, we show results of applying this method across the full sky for 8 years of IceCube data, as well as results corresponding to using this method to stack sources in a catalog of Fermi3LAC blazars.

William Luszczak
University of Wisconsin - Madison

Date submitted: 10 Jan 2020 Electronic form version 1.4