Abstract Submitted for the APR21 Meeting of The American Physical Society

Search for low energy neutrino counterparts to Gravitational waves with IceCube DeepCore ASWATHI BALAGOPAL V., RAAMIS HUS-SAIN, University of Wisconsin - Madison, MICHAEL LARSON, University of Maryland, ALEX PIZZUTO, JUSTIN VANDENBROUCKE, University of Wisconsin - Madison, ICECUBE COLLABORATION — The IceCube Neutrino Observatory has conducted searches for transient astrophysical sources of neutrinos in the TeV energy range. Additional events may be observable by IceCube at lower energies, although the existing analysis rapidly loses sensitivity below about 1 TeV. The densely instrumented DeepCore sub-array provides the ability to reduce the threshold for observation from 1 TeV down to approximately 10 GeV. An event selection optimized for this purpose may be used for analyses that look for neutrino sources coincident in time and direction with transient sources. An overview of this will be presented, along with special focus on a follow up of gravitational wave transients published by the LIGO-Virgo collaboration, using this low-energy data selection.

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