

## Searches for GeV to PeV neutrinos from gravitational wave sources with IceCube

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The IceCube Neutrino Observatory observes neutrinos of both astrophysical and atmospheric origin with energies above 100s of GeV. DeepCore, the dense infill array of IceCube, also allows us to probe neutrinos with lower energies, down to a few GeV. Using high energy ( $>1$  TeV) and low energy ( $< 1$  TeV) datasets curated for the search of astrophysical sources, we can conduct follow-up searches of gravitational wave transients detected by the LIGO-Virgo instruments. We present complementary analyses using these datasets to search for neutrino counterparts from the O1, O2 and O3a runs of LIGO-Virgo. The sensitivities of these analyses, along with the unblinded results of the follow-up using high-energy neutrinos will be presented.

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Neutrinos

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