

Astrophysical tau Neutrinos in the Pacific Ocean

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The Pacific Ocean Neutrino Explorer (P-ONE) is a planned large-scale Cherenkov neutrino detector to be deployed in Cascadia Basin, close to Vancouver Island. This detector will join a worldwide network of neutrino telescopes and holds exciting possibilities of bringing us a step closer to true neutrino astronomy as well as unravelling new physics. High energy tau neutrinos, above energies of 50 TeV, is one exciting channel that P-ONE could access. These neutrinos must have an astrophysical origin and could be used to independently confirm the flux previously observed by IceCube, the largest neutrino telescope in operation, as well as verify neutrino mixing over cosmic distances. This study is a first attempt at developing a method to detect tau neutrinos in P-ONE.

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Please select: Experiment or Theory

Experiment

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