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The Pacific Ocean Neutrino Experiment

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The Pacific Ocean Neutrino Experiment (P-ONE) is a proposed cubic kilometre class neutrino telescope two hundred kilometres off the coast of Vancouver Island, Canada. A partnership with Ocean Network Canada (ONC) brings extensive knowledge, experience, and infrastructure to build a novel large-scale neutrino telescope in the ocean. P-ONE's primary scientific goals are to advance the field of neutrino astronomy, test fundamental physics at TeV to PeV energies, and contribute to multi-messenger astronomy. P-ONE is currently developing the first mooring line (P-ONE 1) to be expanded to a 10-line demonstrator. The demonstrator will observe the first neutrinos in the ocean environment, test new photo-detector modules and calibration methods, and pave the way for a 70-line P-ONE telescope. P-ONE provides a unique opportunity for interdisciplinary collaboration with oceanographers, marine biologists and climate scientists. The design, abilities and current status of the P-ONE demonstrator are shown.

Collaboration name

P-ONE

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