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Cosmic Neutrino Searches at the Highest Energies

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Neutrinos trace the acceleration of hadrons in the high-energy universe. Accelerators powered by neutron stars or supermassive black holes, for instance, may explain the recent discovery of a TeV-PeV neutrino flux. Even higher-energy neutrinos, if discovered, may uncover the origin of the highest-energy hadrons ever observed. High-energy neutrino searches rely on enormous volumes of naturally occurring material, from the waters of the Mediterranean, to rock in the Argentinian mountains, to the vast ice sheet of Antarctica. In this talk, I will review these experiments and discuss future concepts aimed at understanding these great cosmic engines and exploring particle interactions at the highest energies.