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# Neutrino Telescope Array (NTA): Prospect towards Survey of Astronomical $\nu_\tau$ Sources

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By separating $\nu_\tau \to \tau$ conversion from $\tau$-shower generation, the Earth-skimming $\nu_\tau$ method allows for huge target mass and detection volume simultaneously. In part motivated by recent IceCube astrophysical PeV neutrino events, the planned NTA observatory will have three site stations watching the air mass surrounded by Mauna Loa, Mauna Kea, and Hualalai on Hawaii Big Island, plus a site station at the center watching the lower night sky. Sensitivities equivalent to $> 100$ km$^3$ water and pointing accuracy of $< 0.2^\circ$ can be achieved with Cherenkov-fluorescence stereoscopic observation for PeV-EeV neutrinos that is almost background-free. With design based on experience from the operating Ashra-1 detector, and the goal of clear discovery and identification of astronomical $\nu_\tau$ sources, a new International Collaboration is being formed to probe for cosmic proton accelerators.

## Collaboration

– not specified –

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