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Reconstruction of UHE neutrinos with the Askaryan Radio Array (ARA) experiment[1] JORGE TORRES, Ohio State Univ - Columbus, ASKARYAN RADIO ARRAY (ARA) COLLABORATION — Searching for ultra-high energy (UHE) neutrinos ($E_\nu > 100$ PeV), ARA is an experiment located at the South Pole consisting of five clusters of antennas buried at $\sim$200 m in the ice. These antennas are designed to detect radiation emitted by relativistic particle showers that are byproducts of UHE neutrino interactions with ice. In this talk, I will discuss work on reconstructing the properties of signals observed from these neutrino interactions such as signal polarization, deposited energy, and neutrino direction. I will also comment on how this will improve the sensitivity of future point-source neutrino searches with ARA.

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