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High Energy Astrophysical Neutrinos SOEBUR RAZZAQUE, Penn State University — Astrophysical candidate sources of ultra-high energy cosmic rays inevitably produce high-energy neutrinos in-situ and/or around their acceleration sites. While cosmic rays are scattered in the inter-galactic magnetic fields, neutrinos point back to their origin. Hence neutrinos can be used to probe astrophysical sources just like in usual photon astronomy but at much higher energies and at larger distances. Here I present the expected neutrino signals from different astrophysical objects and discuss possible applications of high-energy neutrino properties to study these intriguing sources.

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