

The Prospects to observe UHE neutrinos from astrophysical sources with Trinity

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The ultrahigh-energy (UHE; $> 10^6$ GeV) neutrinos band is one of the last unopened windows to the universe. Although UHE neutrinos are not yet detected, we know they must exist. UHE neutrinos are either produced in interactions of ultrahigh-energy cosmic rays with the cosmic microwave background (cosmic neutrinos) or inside or close by cosmic-ray accelerators. This presentation discusses the expected rate of neutrino detections with Trinity based on predicted neutrino fluxes from astrophysical sources. Trinity is a proposed system of air-shower imaging telescopes optimized to observe ultrahigh-energy neutrinos in the range from 10^6 GeV to 10^9 GeV.

Keywords

ultrahigh-energy neutrinos; neutrino detection; trinity; neutrino telescope; air-shower imaging; cosmic neutrinos

Collaboration

Trinity

other Collaboration

Subcategory

Theoretical Results

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