

Trinity: An Air-Shower Imaging Observatory for UHE-Neutrino Detection

Wednesday, May 26, 2021 5:12 AM (18 minutes)

The Trinity Observatory is a proposed UHE-neutrino detector with a core-energy range of 10^6 GeV- 10^{10} GeV, bridging the observational gap between IceCube and UHE radio detectors. Trinity is a system of novel, 5x60-degree wide field-of-view air-shower imaging telescopes that detect Earth-skimming tau neutrinos from mountain tops. Trinity's primary science objectives are the extension of the IceCube measured neutrino flux to ultrahigh energies and the detection of cosmogenic neutrinos. Trinity will provide critical measurements to study flavor physics and neutrino cross-sections at energies that are out of reach for accelerators. In this contribution, we present the present design of Trinity and discuss its performance.

TIPP2020 abstract resubmission?

Funding information

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Session Classification: Posters: Particle Astrophysics and Space

Track Classification: Experiments: Experiments: Space and particle astrophysics