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The Payload for Ultrahigh Energy Observations (PUEO)

The Payload for Ultrahigh Energy Observations (PUEO) is a proposed balloon-borne NASA mission that will have world-leading sensitivity to the so-far undetected ultrahigh-energy (UHE) neutrino flux at energies above several EeV. PUEO would fly 40 km above the Antarctic continent and seeks to detect the impulsive Askaryan radio emission from the interactions of UHE neutrinos in Antarctic ice. PUEO builds on the experience of the successful ANtarctic Impulsive Transient Antenna (ANITA) program. With additional antennas, improved electronics, and a lower-threshold phased-array trigger, PUEO will have an order of magnitude more reach than ANITA at 10 EeV. PUEO is also sensitive to radio emission from extensive air showers, including upward-going showers initiated by taus from tau-neutrino interactions.

Mini-abstract

PUEO is a proposed balloon mission searching for radio emission from >1 EeV neutrinos in polar ice

Experiment/Collaboration

PUEO

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