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The Radar Echo Telescope: Theory and Experiment

We explore a new tool in the ultra-high-energy neutrino detection toolkit: the radar echo method. Starting with the first confirmed observation of a radar echo detection from a high-energy particle cascade in dense media, detected in 2018 during experiment T576 at SLAC, we present a roadmap to take these lab-based experimental results into nature: The Radar Echo Telescope. This will be a first of its kind observatory to detect neutrinos with energies above 10 PeV.

Mini-abstract

Using in-ice radar to detect neutrinos at 10 PeV and beyond.

Experiment/Collaboration

The Radar Echo Telescope

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