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Status and prospects for the Askaryan Radio Array (ARA) cosmogenic neutrino detector

Thursday 30 July 2015 15:30 (1 hour)

The Askaryan Radio Array (ARA) is an ultra-high energy >100 PeV cosmic neutrino detector which is in phased construction near the South Pole. ARA searches for radio Cherenkov-like emission from particle cascades induced by neutrino interactions in the ice using radio frequency antennas (~150-800MHz) deployed at a design depth of 200m in the Antarctic ice. A prototype ARA Testbed station was deployed at ~30m depth in the 2010-2011 season and the first three full ARA stations were deployed in the 2011-2012 and 2012-2013 seasons. We present the status of the array and plans for the near-term construction of a full ARA-37 detector with profound discovery potential for most models of cosmogenic neutrinos from 100 PeV to 100 EeV in energy.

Collaboration

- not specified -

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Primary author: DUVERNOIS, Michael (University of Wisconsin)

Presenter: DUVERNOIS, Michael (University of Wisconsin)

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