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## First cosmogenic neutrino limits from the ARA Testbed station at South Pole

*Tuesday, August 4, 2015 4:00 PM (1 hour)*

The Askaryan Radio Array (ARA) is an ultra-high energy (UHE) cosmic neutrino detector located at the South Pole. The cosmic ray flux cut off above primary energies of  $10^{19.5}$  eV leads us to expect a UHE neutrino flux due to the Greisen-Zatsepin-Kuzmin (GZK) effect. The detection of these UHE cosmic neutrinos will add to the understanding of the sources and physics of UHE cosmic rays. The radio Cherenkov technique is the most promising technique for a long term program to investigate the UHE cosmic neutrino flux. ARA uses this radio Cherenkov technique by deploying radio frequency antennas at a depth of 200m in the Antarctic ice. A prototype ARA TestBed station was deployed in the 2010-2011 season and the first three ARA stations were deployed in the 2011-2012 and 2012-2013 seasons. We present the results of the first neutrino search with ARA, using data taken from 2011-2012 with the ARA TestBed station.

### Collaboration

ARA

### Registration number following "ICRC2015-I"

348

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