

Publication of the ARA 2 station analysis results of 2013 data

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Paper content

1. Introduction: UHE neutrinos, Askaryan effect
2. The instrument:
 1. General design
 2. Station performance in 2013
3. Simulations
4. Data analysis:
 1. Thermal noise filtering
 2. Vertex reconstruction
 3. Cuts and background estimation
5. Results and cross checks
6. Systematic errors
7. Summary and outlook

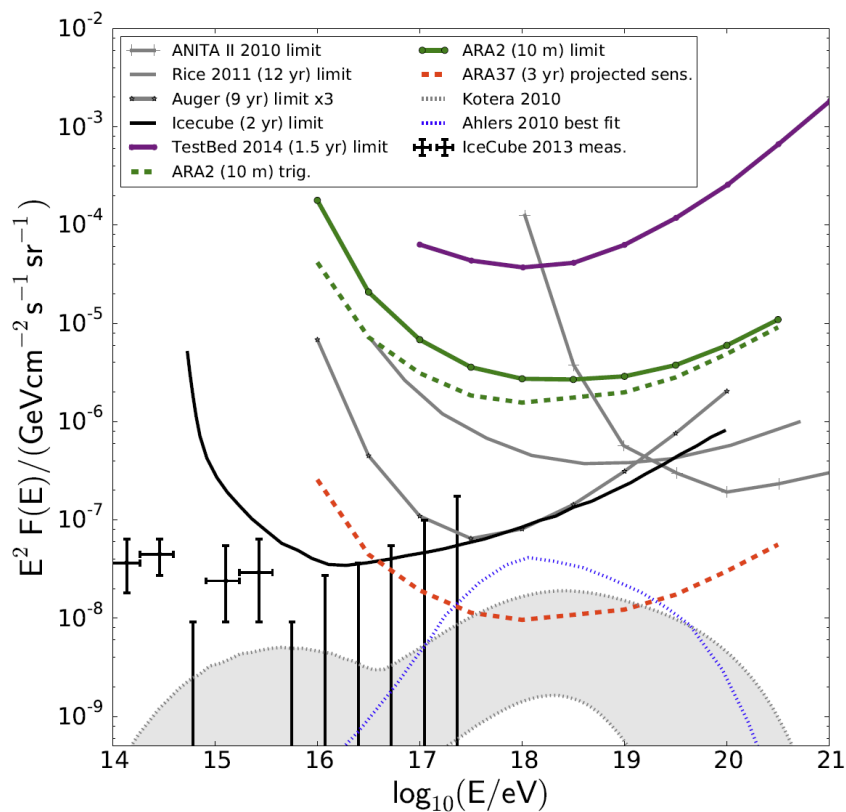
Appendix

- A. **IRS2 calibration**
- B. **Geometry calibration**
- C. **Signal chain calibration**
- D. **E F(E) plot**

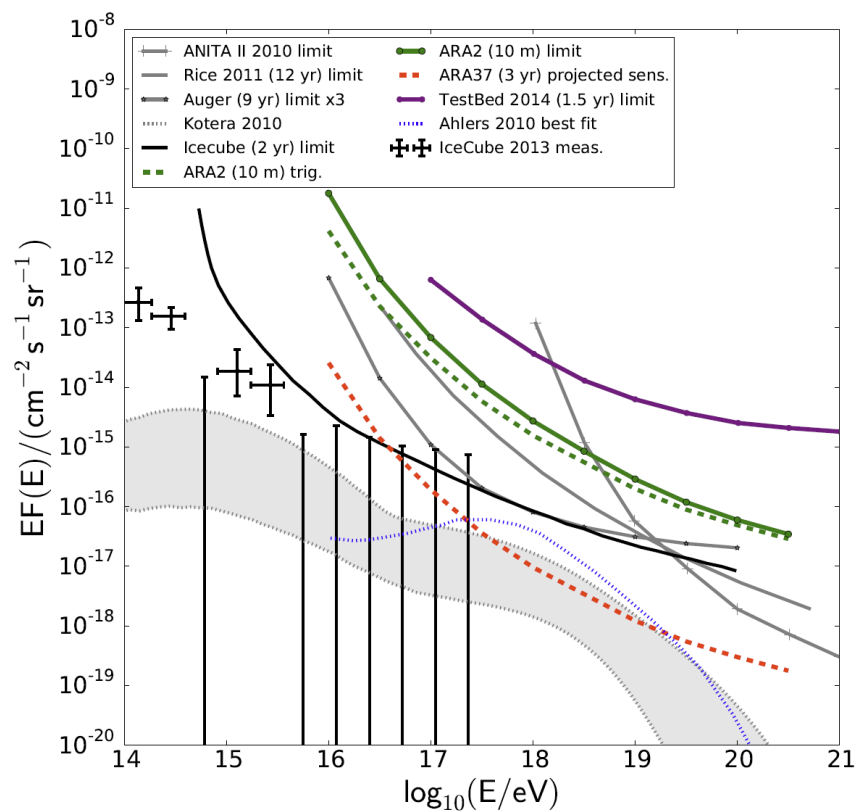
Moved to appendix

Main modifications: Limits

Presented in section 5

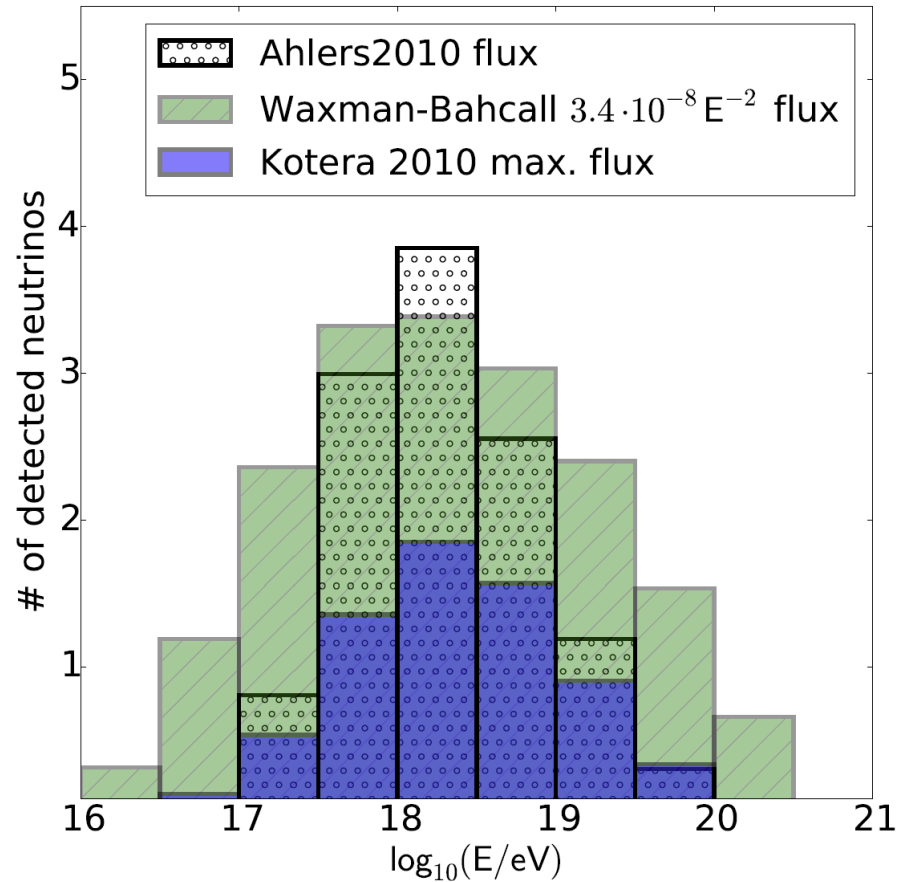


Appendix D



Main modifications: Added number of expected neutrinos for ARA37

Presented in section 7



Status of preparation

- Currently at revision 5:
<http://ara.physics.wisc.edu/cgi-bin/DocDB/ShowDocument?docid=1185>
- Discussing last modifications with ARA referees
- Final spell- and layout check (help is appreciated)
- Author list: Please check for obsolete or missing names
- Publication on arxiv.org within next Wednesday (07/29/2015) ?
- Looking for a journal to place in:
 - Phys. Rev. D
 - Astroparticle Physics
 - ?

Modify the title?

Current:

First constraints on the flux of ultra-high energy neutrinos from two stations of the Askaryan Radio Array

Alternatives:

Performance of two Askaryan Radio Array stations and first results in the search of ultra-high energy neutrinos

First data from the ARA deep ice stations: Performance, calibration and results on the search for UHE neutrinos