9th International Conference on New Frontiers in Physics (ICNFP 2020)



Contribution ID: 131

Type: Talk

Measurement of CNO neutrinos with Borexino

Tuesday 8 September 2020 17:20 (25 minutes)

Borexino is a large solar neutrino detector running at the Laboratori Nazionali del Gran Sasso since 2007. Neutrinos are detected via their interaction with a 300-ton liquid scintillator target, purified to achieve unprecedented levels of radio-purity. Borexino has detected most of the expected solar neutrino spectrum. In particular, it has measured with refined precision the neutrinos from the entire pp fusion chain in the Sun using analysis tools that fully exploit our understanding of the detector. Most recently, Borexino has made the first measurement of solar CNO neutrino, produced in a catalytic hydrogen fusion cycle enabled by the presence in the solar plasma of heavier elements, or "metals". This observation caps almost 15 years of data taking and experimentally proves validity of the pioneering solar modeling by Hans Bethe.

Internet talk

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Borexino

Is the speaker for that presentation defined?

Yes

Details

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