



LNGS SEMINARS

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**Simultaneous spectroscopy of pp, ^7Be
and pep solar neutrinos in the Phase II
of Borexino experiment**

Abstract

The recent analysis of the Borexino Phase II data gives new results for fluxes of solar neutrinos from pp, ^7Be and pep reactions with a significantly better precision. Namely, pp and ^7Be neutrino fluxes are measured with 10% and 3% precision, respectively, while neutrinos from the pep reaction are observed with the significance exceeding 5 standard deviations for the first time. Improvements in analysis techniques made it possible to perform a simultaneous spectral fit including all three solar neutrino spectral components. In addition, a limit on the CNO neutrino flux has been obtained and a possibility of solving the solar metallicity issue is studied.

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