

Last Borexino Result

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Borexino is a large-volume liquid scintillator detector placed in the underground halls of the Laboratori Nazionali del Gran Sasso in Italy. It is able to detect in real time neutrino interactions below 2 MeV, due to the very high radio-purity reached by the detector. The interaction rate of the 0.862 MeV ${}^7\text{Be}$ neutrinos is $49 \pm 3_{\text{stat}} \pm 4_{\text{syst}}$ counts/(day \cdot 100 ton), in agreement with the oscillation hypothesis in the MSW Large Mixing Angle scenario. Our result is the first direct measurement of the survival probability for solar ν_e in the transition region between matter-enhanced and vacuum-driven oscillations.

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