

LABORATORI NAZIONALI DEL GRAN SASSO

SEMINAR ANNOUNCEMENT

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**“Measurement of geo-neutrinos
and electron anti-neutrinos from
reactors with Borexino”**

Abstract

The Borexino collaboration has recently released first results on electron anti-neutrinos. The present data set from Dec. 2007 to Dec. 2009 corresponds to 537.2 days of life time. Electron anti-neutrinos in Borexino can be distinguished between geo-neutrinos, from beta decays in the interior of the Earth, and reactor anti-neutrinos. The measurement of reactor anti-neutrinos in Borexino allows to probe neutrino propagation over a base line of about 1000 km. The measurement of geo-neutrinos offers a unique probe for the interior of the Earth. Details of data selection and analysis will be presented.

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