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## The SoLid short baseline neutrino detector

*Thursday, July 6, 2017 10:45 AM (15 minutes)*

The SoLid short baseline reactor neutrino experiment consists of a highly segmented plastic scintillator detector with a fiducial mass of 2 ton. Its main purpose is to prove or rule out the existence of sterile neutrinos corresponding to  $\delta_{M^2}$  values of order  $1\text{eV}^2$ . The covered baseline ranges between 6 and 9 meters and is in-line with the compact core of the 60MW BR2 reactor of the Belgian Nuclear Research Centre. The experiment will come online in the summer of 2017 and will reconstruct over 50.000 neutrino events per year, based on the inverse beta decay process.

In this talk we will review the detector technology and several improvements made to the original design, based on the physics and operational performance of a 320kg full size prototype module that took data at the same site in 2015.

When available, we will also present a preview of the commissioning data of the final design detector system, that should come online around the time of this conference.

### Experimental Collaboration

The SoLid Collaboration

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**Session Classification:** Detectors and data handling

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