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## First results of the deployment of a SoLid detector module at the SCK•CEN BR2 reactor

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The SoLid experiment intends to search for active-to-sterile anti-neutrino oscillation at very short baseline of the SCK•CEN BR2 research reactor and provide a precise measurement of a high enriched Uranium core, a key ingredient in the calculation of reactor antineutrino flux. It utilises a novel approach to anti-neutrino detection based on a highly segmented detector design. High experimental sensitivity can be achieved using a combination of high granularity, high neutron-gamma discrimination using 6LiF:ZnS(Ag) and precise localisation of the Inverse Beta Decay products.

This relatively compact detector system requires limited passive shielding as it rely on spatial topology to determine the different class of backgrounds.

We will describe the principle of detection, detector design with a focus on the performance of the first full scale SoLid module (SM1) that was deployed successfully at BR2 in November 2014. We will conclude on the physics reach of the next phase that will start in the second half of 2016.

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