

## Search for Neutron-Antineutron Oscillations at the Sudbury Neutrino Observatory

*Thursday, 31 May 2018 17:50 (20 minutes)*

Tests on  $|B - L|$  symmetry breaking models are important probes to search for new physics. One proposed model with  $|\Delta(B - L) = 2|$  involves the oscillation of a neutron to an antineutron. In this talk, the recently published results for a search of this process in the deuteron from the data acquired from all three operational phases of the Sudbury Neutrino Observatory experiment will be summarized. Discussions on the observable signature of such a process and an upper limit on the free neutron-antineutron oscillation time will also be provided.

### E-mail

bergevin1@llnl.gov

### Collaboration name

SNO Collaboration

### Funding source

Part of this work was performed under the auspices of the US Department of Energy by Lawrence Livermore National Laboratory under contract DE-AC52-07NA27344, release number LLNL- ABS-749889.

**Primary author:** Dr BERGEVIN, Marc (LLNL)

**Presenter:** Dr BERGEVIN, Marc (LLNL)

**Session Classification:** PPHI / TSEI

**Track Classification:** TSEI