



Contribution ID: 64

Type: **Oral**

Recent results from the MAJORANA DEMONSTRATOR

Monday 7 August 2017 17:30 (15 minutes)

The MAJORANA DEMONSTRATOR is an experiment constructed to search for neutrinoless double-beta decays in germanium-76 and to demonstrate the feasibility to deploy a large-scale experiment in a phased and modular fashion. It consists of two modular arrays of natural and ^{76}Ge -enriched germanium detectors totalling 44.1 kg, located at the 4850' level of the Sanford Underground Research Facility in Lead, South Dakota, USA. While crucial for its neutrinoless double-beta decay search, the ultra-low backgrounds and excellent energy resolution of the MAJORANA DEMONSTRATOR also allow it to probe additional physics beyond the Standard Model. This includes searches for dark matter and solar axions. This talk will discuss the results to date from the neutrinoless double-beta decay and beyond the Standard Model searches, as well as the future prospects of the MAJORANA DEMONSTRATOR.

Author: Dr MYSLIK, Jordan (Lawrence Berkeley National Laboratory)

Presenter: Dr MYSLIK, Jordan (Lawrence Berkeley National Laboratory)

Session Classification: Dark matter

Track Classification: Dark matter (direct detection, indirect detection, theory, etc.)