Contribution ID: **810** Type: **Parallel**

Recent results from the MAJORANA DEMONSTRATOR

Saturday 7 July 2018 16:45 (15 minutes)

The MAJORANA DEMONSTRATOR is an experiment constructed to search for neutrinoless double-beta decay in ^{76}Ge 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, operating on the 4850' level of the Sanford Underground Research Facility in Lead, South Dakota, USA. Commissioning running began in June 2015, followed by the full detector array acquiring data since August 2016. The ultra-low background and record energy resolution achieved by the MAJORANA DEMONSTRATOR enable a sensitive neutrinoless double-beta decay search, as well as additional searches for physics beyond the Standard Model. I will discuss the design elements that enable these searches, along with our latest results, focusing on the neutrinoless double-beta decay search. I will also discuss the current status and the future plans of the MAJORANA DEMONSTRATOR, as well as the plans for a future tonne-scale ^{76}Ge experiment.

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Session Classification: Neutrino Physics

Track Classification: Neutrino Physics