



## Poster session 4 – Friday 8 July

### P4.012 A search for bosonic dark matter with the Majorana Demonstrator Neutrinoless double-beta decay experiment

R Henning

UNC Chapel Hill / TUNL, USA

*on behalf of Majorana collaboration*

The Majorana Collaboration is assembling an array of high purity Ge detectors to search for neutrinoless double-beta decay in  $^{76}\text{Ge}$ . The array is also able to perform searches for dark matter and other new physics. The Majorana Demonstrator is comprised of 44 kg (30 kg enriched in  $^{76}\text{Ge}$ ) of Ge detectors in total split between two modules contained in a low background shield at the Sanford Underground Research Facility in Lead, South Dakota. The initial goals of the Demonstrator are to establish the required background and scalability of a Ge-based next-generation tonne-scale experiment. Following a commissioning run that started in 2015, the first detector module started physics data production in early 2016. We present the results of a search for bosonic dark matter using data from the commissioning and first physics runs that improve upon existing limits.