



Poster session 3 – Wednesday 6 July

P3.011 The DUNE 35-ton LArTPC prototype: Hardware design and construction

S Soldner-Rembold¹ and N Barros²

¹University of Manchester, UK, ²University of Pennsylvania, USA

on behalf of the DUNE collaboration

The Deep Underground Neutrino Experiment will employ a multi-kTon Liquid Argon Time Projection Chamber (LArTPC) as its far detector located at the Homestake mine in South Dakota. This will require a volume scale-up of roughly a factor of 50 compared to Icarus T600, which is the largest LArTPC built to date. To achieve this scale-up, a number of novel design elements will need to be employed. The DUNE 35-ton prototype LArTPC has been constructed and operated with cosmic rays to test as many of these elements as possible. This poster describes the design, construction and operation of the 35-ton LArTPC prototype.