Physics Opportunities in the Near DUNE Detector hall: PONDD



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High-Pressure Gas TPC for DUNE Near Detector

Monday, 3 December 2018 11:30 (30 minutes)

The DUNE near detector will consist of several components, one of which is the high-pressure gaseous argon time projection chamber, HPgTPC. As a fined-grained tracker with a low density and low detection threshold, it is well-suited to measure one of the most crucial sources of systematic uncertainty for neutrino oscillation measurements: nuclear effects in argon at the neutrino interaction vertex. In this talk, an overview of the HPgTPC design and its expected physics performance will be presented.

Presenter: MOHAYAI, Tanaz (Fermilab)

Session Classification: Near Detector Physics