

Neutrino energy scale measurements in DUNE using advanced computing

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The Deep Underground neutrino experiment (DUNE), consisting of near (DUNE-ND) and far (DUNE-FD) detectors, is a long-baseline experiment that is designed to measure neutrino oscillations, as well as searches beyond the standard model. The DUNE-FD will operate with a total volume of 70 kiloton liquid argon and will be situated at Sanford Underground Research Facility (SURF) in South Dakota. The DUNE-ND will be placed close to the neutrino source and measure an un-oscillated neutrino beam for precise measurement of oscillation parameters. I will present the impact of using model systematics on the neutrino energy scale measurements in DUNE using advanced computing at Argonne.

Poster prize

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