

Abstract Submitted
for the TSF19 Meeting of
The American Physical Society

Electric Field Simulation of the Field Cage for Dual Phase Deep Underground Neutrino Experiment ARCHIT JAISWAL, University of Texas at Arlington, UTA HIGH ENERGY PHYSICS TEAM — The Deep Underground Neutrino Experiment (DUNE) is being conducted across the world to study the characteristics of subatomic particle known as neutrinos. This subatomic particle can reveal various unsolved mysteries like existence of matter in the universe. The neutrino interaction will be captured inside a 12m x 12m x 60m field cage, which is constructed by modules made of aluminum strips and fiber-glass I-beams. The experiment requires to have uniform electric field across the field cage which will be submerged in liquid Argon. After analyzing the faults from previous design of submodules, several amendments were applied to the field cage design. Before the actual construction and test of field cage, DUNE collaborators at UTA are attempting to simulate the electric field across the new field cage design.

Archit Jaiswal
University of Texas at Arlington

Date submitted: 28 Sep 2019

Electronic form version 1.4