



High Energy Physics Special Seminar

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“Long-baseline Sterile Neutrino Searches in the NOvA Experiment”

Host: Peter Winter

Wednesday, September 15, 2021 – 12:00pm-1:00pm

<https://argonne.zoomgov.com/j/1612225244?pwd=K0tRQTI4bIhNUHpING5CaIVBMUwrdz09>

Abstract:

This talk summarizes my contributions to the NOvA experiment, focusing on my searches for the sterile neutrino through the neutral current (NC) disappearance between its Near Detector (ND) and Far Detector (FD). Two separate long-baseline sterile neutrino searches are discussed: using neutrino beam and antineutrino beam. Also, briefly discusses the development of a cosmic rejection BDT and NC energy estimator for both of these analyses. In addition to that, my accomplishment in introducing cosmic π^0 as a calibration standard candle is also discussed.

The HEP Special Seminar Schedule can be viewed at:

<https://indico.fnal.gov/event/51008/>