



Contribution ID: 76

Type: **not specified**

Dark Neutrino Simulations with GENIE on SBND

Monday, March 15, 2021 12:55 PM (10 minutes)

A potential explanation of the MiniBooNE low energy excess posits the existence of a novel dark sector, involving a dark neutrino and a dark gauge boson. In this model neutrinos interact with nuclei and up-scatter into dark neutrinos. I will present a new GENIE module that generates the Dark Neutrino interactions from this model, allowing simulations of their expected signal on the Short Baseline Near Detector (SBND), a LArTPC detector under construction as part of Fermilab's Short-Baseline Neutrino Program.

Primary author: DE ICAZA, Iker (University of Sussex)

Presenter: DE ICAZA, Iker (University of Sussex)

Session Classification: Flash Talks