



Contribution ID: 92

Type: **not specified**

Cosmogenic Background Mitigation at the ICARUS

Monday, 18 July 2022 20:40 (20 minutes)

The ICARUS detector will search for LSND-like neutrino oscillations exposed at shallow depth to the FNAL BNB beam as the far detector in the Short-Baseline Neutrino (SBN) program. Cosmic backgrounds rejection is particularly important for the ICARUS detector due to its larger size and distance from neutrino production compared to the near detector SBND. In ICARUS the neutrino signal over cosmic background ratio is 40 times more unfavorable compared to SBND, in addition a greater than 3 times larger out-of-spill cosmic rate. On this talk, I will illustrate techniques for reducing cosmogenic backgrounds in the ICARUS detector with initial commissioning data.

In-person or Virtual?

In-person

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Session Classification: Poster Session