



THE INSTITUTE
FOR UNDERGROUND SCIENCE
AT SURF

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TALK: A SURF Low Background Module (SLoMo)

Tuesday, July 9, 2024 2:00 PM (45 minutes)

With radiopurity controls and targeted design modifications a kton-scale liquid argon time projection chamber similar to DUNE could be used for enhanced low energy physics searches. This includes improved sensitivity to supernova and solar neutrinos, and other rare event searches, such as WIMP dark matter, while simultaneously serving long-baseline neutrino physics. This talk will present simulation studies to evaluate physics sensitivities of such a module. It will also discuss R&D to develop large-scale radiopurity controls necessary to construct such a detector.

Presenter: REICHENBACHER, Juergen (South Dakota School of Mines and Technology)