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**Search for low mass dark matter at ICARUS detector using the NuMI beam** NICHOLAS SUAREZ, ANIMESH CHATTERJEE, VITTORIO PAOLONE, University of Pittsburgh, ICARUS COLLABORATION — The proposed Short-Baseline Neutrino physics program at Fermilab will deliver rich and compelling physics opportunities, including the ability to resolve a class of experimental anomalies in neutrino physics. The ICARUS-T600 detector which functions as the far detector of the SBN program is being commissioned at FNAL. In addition to its main physics program (sterile neutrino search), thanks to the superb performance of the detector, ICARUS can provide an excellent opportunity to study dark matter. Because ICARUS is situated approximately 5.7 degrees off of the NuMI neutrino beam, where the low mass dark matter (LDM) flux is expected to peak for a wide range of masses while the neutrino flux is greatly reduced, LDM searches would greatly benefit. In this talk, we will discuss the opportunity to search for LDM at ICARUS using the NuMI neutrino beam.

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