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# Cosmogenic Background Suppression at the SBN Far Detector (ICARUS) with the Cosmic Ray Tagging System

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As the SBN far-detector, the ICARUS T600, a set of liquid argon time-projection chambers (TPC), will operate at shallow depth and therefore be exposed to the full surface flux of cosmic rays. This poses a problematic background to the neutrino oscillation search, especially photons produced by muons passing in close proximity to, but not through, the active volume. A direct way to reject this background is to surround the cryostat with a detector capable of tagging incident cosmic muons with high efficiency (95%), the cosmic ray tagging system (CRT). I will present my work on a method of separating background muons from neutrino interactions in the fiducial volume by a time-of-flight measurement between the CRT and the signal from scintillation light in the TPC.

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