

New Perspectives



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Hit Reconstruction in the ICARUS (SBN FD) Cosmic Ray Tagging system

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The ICARUS neutrino detector is a 760 ton Liquid Argon Time Projection Chamber (LArTPC) operating as the far detector in the Short Baseline Neutrino (SBN) Program based at Fermilab. As this detector will operate at shallow depth, it is exposed to a high flux of cosmic rays that could fake a neutrino interaction. The installation of a 3-meter-thick concrete overburden and a Cosmic Ray Tagging (CRT) system that surrounds the LArTPC and tag incoming particles mitigate this cosmogenic background source. I will discuss a preliminary analysis using data from the now fully commissioned CRT system.

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