

## Backgrounds in the $\nu$ BDX-DRIFT Experiment at Fermilab

*Tuesday, 24 May 2022 10:50 (23 minutes)*

The  $\nu$ BDX-DRIFT experiment seeks to study  $CE\nu$ NS interactions and search for BSM physics using low-energy nuclear recoils at Fermilab, detailed in another talk at this conference. Background suppression is the key to the success of this endeavor. Using GENIE and Geant we have benchmarked our simulations to results from a preliminary COUPP run in the NuMI beam in 2009. Utilizing this result we can then confidently predict backgrounds during an envisioned run at NuMI. With use a scintillating veto we show sufficient background reduction to carry out the aims of the  $\nu$ BDX-DRIFT experiment.

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