Abstract Submitted
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Background studies for the XENON Dark Matter Project JESSE ANGLE, Univ. of Florida, XENON COLLABORATION — The XENON Dark Matter Project uses liquid xenon as target and detector for detecting cold dark matter particles at a sensitivity more than three orders of magnitude better than current projects. Integral to the sensitivity of this detector is strong understanding of the background signal and its source. Using an ultra-pure germanium crystal detector operated in a low-level shield at the Soudan Mine in Minnesota, we are able to measure the radioactivity of the various materials that will comprise the XENON detector. I will present first results from our screening effort, as well as background expectations of the first stage of the experiment, XENON10 at the Gran Sasso Underground Lab, based on Monte Carlo simulations using GEANT4.

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