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SNO+ Multipurpose Neutrino Detector CHRISTINE KRAUS, SNO+ COLLABORATION — SNO+ proposes to fill the existing SNO detector with liquid scintillator. The unique location in SNOLAB, currently the worlds deepest international underground facility, will enable a variety of physics measurements from further studies of solar neutrinos (pep and CNO), to geo- and reactor neutrinos, to supernova neutrinos to the possibility of studying neutrinoless double beta decay. With the addition of ¹⁵⁰Nd to the liquid scintillator SNO+ is capable of a competitive next-generation search for this rare process. The physics potential and experimental sensitivities will be discussed.

Christine Kraus

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