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Neutrinoless Double Beta Decay and the SNO+ Experiment

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SNO+ is a kilo-tonne scale low background neutrino detector with the primary goal of searching for neutrinoless double beta decay ($0\nu\beta\beta$). The experiment's target volume is currently filled with liquid scintillator, providing the scope for background characterisation as well as measurement of reactor, geo, and low-energy solar neutrinos. The scintillator will be loaded with natural tellurium in order to search for $0\nu\beta\beta$ in tellurium-130.

This talk will give an overview of the SNO+ experiment, the preparations for $0\nu\beta\beta$ search, and the projected sensitivity.

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