

Solar Neutrino Searches in the LUX-ZEPLIN (LZ) Experiment

Wednesday, 20 May 2026 10:00 (30 minutes)

Underground liquid xenon time-projection chambers (TPCs) offer a low-background environment, a key requirement to enable sensitive searches for possible dark matter interactions. Additionally, these same conditions make xenon TPCs excellent for the detection of solar neutrino events down to and even below the ~1 keV electron-equivalent scale. In this talk I describe the program of solar neutrino searches with the largest liquid-xenon TPC operated to date: the LUX-ZEPLIN experiment, located at the Sanford Underground Research Facility, USA.

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