

## **Panda-X: Dark matter and neutrino-less double beta decay**

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The PandaX (Particle AND Astrophysical Xenon experiment) project, located at China JinPing underground Laboratory (CJPL), uses xenon Time Projection Chambers (TPC) to search for the dark matter particles as well as the Neutrinoless Double Beta Decay (NLDBD) of Xe-136 isotope. The second phase of the experiment, PandaX-II, is a 500 kg scale dual phase liquid xenon TPC and has been one of the leading dark matter direct detection experiments. The next phase dark matter experiment, PandaX-xT, aims to have 4 ton of liquid xenon in the active volume and reach a spin-independent WIMP-nucleon scattering cross section of  $6E-48$  cm<sup>2</sup> after two years of running. Meanwhile, the PandaX-III experiment will search for NLDBD of Xe-136 using high pressure gaseous TPC. The first PandaX-III module will have 200 kg of 90% enriched Xe-136 and run at 10 bar.

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