

XENON1T detector

The XENON1T detector is a dual-phase time projection chamber with a total of 3200kg of liquid xenon to search for dark matter. XENON1T is currently under construction at the Gran Sasso underground laboratory for commissioning early 2015. With a fiducial volume of at least 1000kg and a background more than two orders of magnitude below that of XENON100, the XENON1T experiment will be able to probe a particularly rich region of the electroweak-scale parameter space, with a sensitivity $\sigma_{\text{SI}} \sim 2 \times 10^{-47} \text{ cm}^2$ within 2 years of operation. This poster will present the detector, some design aspects, and its sensitivity.

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