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The XENON1T Experiment

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The XENON1T experiment, currently under construction at the Laboratori Nazionali del Gran Sasso in Italy, aims at detecting dark matter weakly interacting massive particles (WIMPs) with a dual-phase time projection chamber filled with 3300 kg of liquid xenon. The new experiment will be sensitive to a spin-independent WIMP-nucleon scattering cross section of $2 \times 10^{-47} \text{ cm}^2$ ($40 \text{ GeV}/c^2$), nearly two orders of magnitude better than current limits. In this talk I will present the experiment, describe its various subsystems, and report on the current status of the construction.

Collaboration

XENON1T

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