

Abstract Submitted
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Current Status of the XENON100 Dark Matter Experiment¹

UWE OBERLACK, Rice University, XENON100 COLLABORATION — Non-baryonic Dark Matter makes up $\sim 85\%$ of all matter in the universe. A plausible theoretical class of candidates are Weakly Interacting Massive Particles (WIMPs). XENON100, located at the Gran Sasso National Laboratory in Italy, is a liquid/gas xenon time projection chamber for direct detection of WIMP-nucleon recoils. XENON100 is the successor of the highly successful XENON10 experiment, featuring 10 times greater sensitive mass (~ 50 kg fiducial) and 100 times lower background. The expected sensitivity is $\sim 10^{-45}$ cm² for spin-independent interactions. XENON100 has been installed and has started operating. I will report on the present status of XENON100 and its expected physics reach.

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