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The XENON Program: Results from XENON100 and the Evolution Towards the Ton Scale

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The XENON experimental program is aimed at the detection of Dark Matter in the form of Weakly Interacting Massive Particles (WIMPs), using liquid xenon as target and the 'double phase' technique to discriminate nuclear recoils (the signature of WIMPs) from the ordinary radioactive background. The XENON collaboration has already deployed two successful detectors at the Gran Sasso Laboratory. I will review the recent results from XENON100, which employs 160kg of target, and then will illustrate the new XENON1T detector (with a total of 2.5t of xenon), whose installation will start in 2012, always at Gran Sasso.

for the collaboration

XENON

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