

## Status of the XENON100 experiment for WIMP direct detection

*Thursday, July 16, 2009 10:00 AM (15 minutes)*

The XENON100 experiment aims to directly detect cold dark matter particles via their elastic collisions with Xenon nuclei. On this purpose a ultra-low background double phase (liquid-gas) xenon filled time projection chamber with a total mass of 170 kg (70 in the target region and 100 kg in the active shield) has been installed at the Gran Sasso Underground Laboratory and is currently taking calibration data. In this talk the background predictions based on Monte Carlo simulations with input from screening of detector and shield materials will be presented. Moreover the design and performance of the detector and its associated systems, based on the calibration runs will be also presented.

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**Session Classification:** I. Astroparticle Physics

**Track Classification:** Astroparticle Physics