

The XENON1T Dark Matter Experiment

Wednesday, 21 June 2017 15:00 (20 minutes)

Understanding of the nature of the Dark Matter is one of the biggest challenges in frontier science today. Astrophysical and cosmological observations provide strong evidences for its existence. A number of proposed candidates have been put forward over time: one of the most compelling are Weakly Interacting Massive Particles (WIMPs). The XENON1T dark matter experiment aims at finding direct evidence for the scattering of WIMPs with xenon target nuclei in an ultra-low background dual-phase time projection chamber detector located in the underground National Laboratory of Gran Sasso, Italy.

I will review the current status, the recent results and the scientific reach of the XENON1T experiment.

Primary author: Dr DIGLIO, Sara (Subatech)

Presenter: Dr DIGLIO, Sara (Subatech)

Session Classification: Working Group: Astroparticle physics and cosmology

Track Classification: Astroparticle Physics and Cosmology Working Group