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## Latest Results from the XENON1T Experiment

*Friday, 7 July 2017 10:20 (20 minutes)*

XENON1T is a two-phase xenon TPC for the direct detection of dark matter. The target mass is 2 tons of liquid xenon. The detector was commissioned in the middle of 2016, and completed its first science run in January 2017. During the science run the detector has achieved the world's lowest background among comparable experiments. This talk will present the detector performance, calibration, and background studies which are paving the way towards the world's most sensitive dark matter search, and present the results of the first science run.

**Apply to be considered for a student &nbsp; award (Yes / No)?**

yes

**Level for award (Hons, MSc,   PhD, N/A)?**

PhD

**Main supervisor (name and email)<br>and his / her institution**

Prof Rafael Lang (rafael@purdue.edu)

**Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?**

no

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**Session Classification:** Astrophysics

**Track Classification:** Track D1 - Astrophysics