



Contribution ID: 48

Type: **Talk**

Simulations for the LUX-ZEPLIN Experiment

Tuesday, July 24, 2018 5:10 PM (20 minutes)

The LUX-ZEPLIN experiment will use a seven tonne dual-phase xenon TPC for the direct detection of WIMP dark matter. Backgrounds that can affect the experiment's sensitivity must be well understood. Simulations are essential to estimate these and thus to develop effective strategies to mitigate them. They are also useful in assessing detector performance, and planning calibration and analysis schemes. I will describe the LZ simulations framework and give details of how its output is used to inform these applications.

Primary author: COTTLE, Amy (Fermi National Accelerator Laboratory)

Presenter: Prof. KUDRYAVTSEV, Vitaly (Sheffield University)

Session Classification: 2.5 Direct Detection

Track Classification: Direct Detection