Contribution ID: **160** Type: **Talk**

【315】Outer Detector Energy Calibration of the LUX-ZEPLIN Experiment

Tuesday 10 September 2024 17:30 (15 minutes)

The LUX-ZEPLIN (LZ) experiment is a dual-phase liquid xenon time projection chamber aiming to make direct observation of weakly interacting massive particles (WIMPs). LZ published first results of data taken from December 2021 to May 2022, finding it consistent with background only, no WIMP hypothesis. Ensuring the accuracy of detector response with calibrations is vital. In the case of the neutron veto, the Outer Detector (OD), three calibration source deployment tubes are employed to ensure sufficient spatial calibration. I will present an overview of the OD energy calibration, with gamma sources ranging from 122 keV to 4.44 MeV, used to ensure the accuracy of the gadolinium neutron capture response.

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Session Classification: Nuclear, Particle- & Astrophysics (TASK)

Track Classification: Nuclear, Particle- and Astrophysics (TASK)