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Calibrating the XENON1T Dark Matter Detector[1] JOSEPH HOWLETT, Columbia University, XENON COLLABORATION — XENON1T is the worlds largest running direct dark matter detector. With its first results, it achieved the lowest background of any experiment of its kind, as well as the most stringent exclusion limits on the spin-independent WIMP-nucleon cross section. Since the experiment is searching for nuclear recoils of WIMPs in liquid xenon, and its background is dominated by electronic recoils from Rn222 contamination, it is crucial to understand both types of interactions through careful calibrations with various sources. This talk will review the acquisition and analysis of calibration data in the most recent run of XENON1T, and how this data was used to understand and model the production of observables in the detector.

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