

## Electron Trains in LXe TPCs

*Tuesday 17 July 2018 16:30 (15 minutes)*

XENON1T is a liquid xenon time projection chamber (TPC) designed to look for elastic recoils of dark matter particles with xenon nuclei. To increase the sensitivity of the experiment, we need to decrease the background in the detector. One background that is specific to low-energy recoils comes from so called single electrons trains that follow interactions in the TPC over time scales of hundreds of milliseconds. To mitigate this background, we first need to understand where it comes from. This talk will discuss different theories for these electron trains and how I test these ideas through analysis of XENON1T data.

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