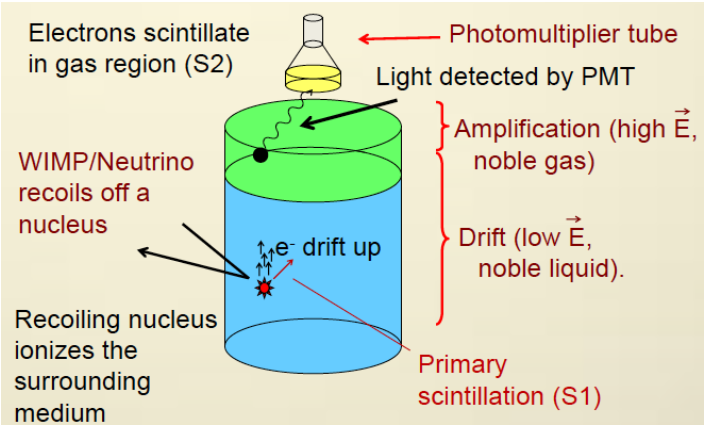
The Search for Dark Matter and Coherent Neutrino Scatter

Research Overview

Measure Weakly Interacting Massive Particle (WIMP) dark matter in dual-phase noble gas detectors. LUX is the world's most sensitive WIMP detector, LZ the 10x larger follow-on detector. Similar detectors can be used to measure coherent neutrino scattering



Potential Collaborations

- **LUX and LZ dark matter searches**
- **Measure low-energy neutron recoil to determine the lowest energy sensitivity of noble liquid detectors.**
- **Design Ar detector to measure coherent neutrino scattering for the first time.**

Previous Dissertations

"Measuring the Ionization Yield of Low-energy nuclear recoils in liquid argon" Tenzing Joshi (UCB Nucl. Eng.; 2014)

T. Joshi et al., PRL 112, 171303 (2014)

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