

Phenomenology 2023 Symposium



Contribution ID: 110

Type: not specified

Recent Developments in Measuring the Migdal Effect

Monday, May 8, 2023 5:00 PM (15 minutes)

The Migdal effect, ionization induced by a nuclear recoil, is an important atomic process for pushing conventional dark matter searches into the MeV mass range. The Migdal effect has of yet not been definitively observed using standard model probes. We have studied the viability of measuring the neutron induced Migdal effect in liquid xenon, silicon, and liquid argon. We present the results of these calculations as well as preliminary results of a measurement done in a two-phase xenon TPC done at LLNL.

Primary author: ADAMS, Duncan (C.N. Yang Institute of Theoretical Physics)

Presenter: ADAMS, Duncan (C.N. Yang Institute of Theoretical Physics)

Session Classification: DM I

Track Classification: Dark Matter