Abstract Submitted
for the APR13 Meeting of
The American Physical Society

Energy Resolution in High Pressure Xenon Gas Using Electroluminescence in Parallel Wire Grids vs. Crossed Wire Meshes CLEMENT SOFKA, JAMES WHITE, Texas A&M University — Several rare event searches (*e.g.* detection of dark matter particles and neutrinoless double beta decay) are ongoing around the globe utilizing electroluminescent (EL) light collection from noble elements in drift chambers. These detectors use various wire geometries to achieve an EL gap that is optimized for light production, light collection, and energy resolution. We investigate the energy resolution of a parallel wire geometry and compare it to an EL gap composed of two crossed meshes in a high pressure gaseous xenon (GXe) drift chamber. The design, construction and results will be discussed.

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Date submitted: 14 Jan 2013 Electronic form version 1.4