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Drift Field Effects on Prompt Scintillation in the DarkSide-10 Liquid Argon TPC JOHN TATAROWICZ, Temple University, DARKSIDE COLLABORATION — The DarkSide-10 dark matter detector is a dual-phase argon time projection chamber (TPC). Its dual-phase design allows for particle discrimination based on parameters from both the liquid and gas phases. The primary discrimination parameter is the prompt scintillation fraction observed in the liquid phase, defined as the fraction of light collected in the first 90 ns of the primary scintillation signal. In the current detector run, we have looked at signals from various gamma sources with various applied electric fields in order to better characterize the detector response. In this talk the effect of the applied electric field on the prompt scintillation fraction will be discussed.

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