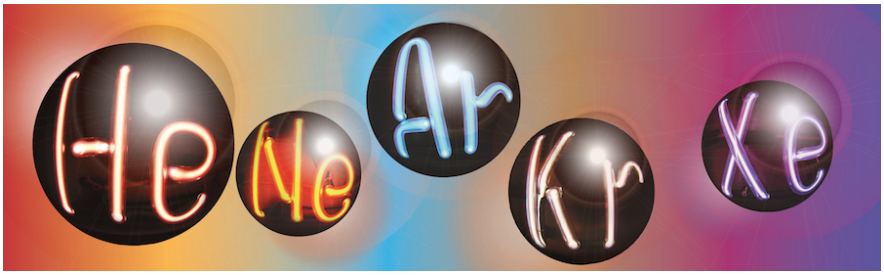

Contribution ID: **26** Type: **Poster**

Updated parameters of the LArQL model

Monday 26 August 2024 17:50 (20 minutes)

The need for a microscopic description of scintillation light generation in liquid argon becomes increasingly desirable with the upcoming operation of large scale LArTPCs in the next decade. While a detailed mathematical account of the process is still to be achieved, a phenomenological model for simultaneously treating ionization and scintillation, LArQL, has been successfully employed to describe the range of electric fields from 0 to 0.75 kV/cm and dE/dx from 2 to 40 MeV/cm providing the anti-correlation between the free ionization charge and scintillation light. A reanalysis of the original model parameter values has been performed within a global fit procedure and will be presented.

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