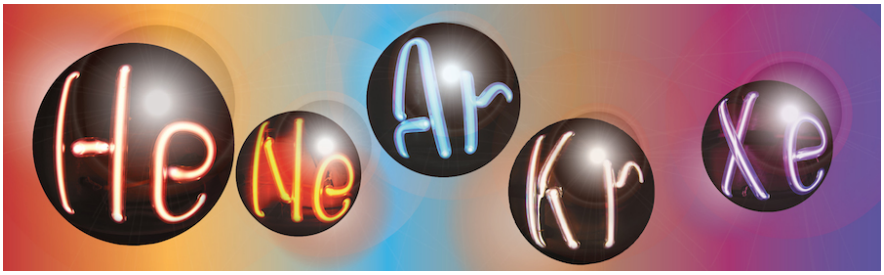

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The Noble Element Simulation Technique v2

Saturday, 23 September 2017 11:45 (15 minutes)

The Noble Element Simulation Technique (NEST) software, introduced in 2011, provided a method to calculate light and ionization yields for noble element-based detectors. Since then, results from a variety of experiments have enabled improvements to NEST's underlying model. This talk introduces NEST2, a new version of NEST that implements the improved model as well as several software improvements for ease-of-use. This talk also demonstrates NEST2's validation against several experiments. NEST2 is available now for xenon in all three phases, for recoils from 0.1-5,000 keV and fields from 0-5,000 V/cm, and can handle an increased variety of interaction types including calibration and background sources.

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