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## **Lucie Tvrznikova (Yale/LBNL): Characterization of high voltage behavior in noble liquids with XeBrA**

*Friday 23 February 2018 17:15 (15 minutes)*

The Xenon Breakdown Apparatus (XeBrA) is a 5-liter detector designed to study high voltage behavior in noble liquids, located at Lawrence Berkeley National Laboratory. XeBrA is designed to characterize the dependence of electric field breakdown on electrode properties in both liquid argon and liquid xenon. Electrodes may be tested up to 30 cm<sup>2</sup> in area, while varying cathode-anode separation from 0 to 10 mm, with cathode voltages up to -75 kV. Experimental evidence suggests a correlation between breakdown field and electrode area in liquid argon, and XeBrA's design will determine whether such a correlation exists in liquid xenon and allow for a direct comparison between measurements in liquid xenon and liquid argon. This talk will present the motivation for XeBrA and its first results.

**Presenter:** TVRZNIKOVA, Lucie (Yale/LBNL)

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