

# The LUX experiment: review of the recent data analysis progress

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The LUX collaboration has pioneered new techniques in the quest of solving the dark matter puzzle. Using liquid xenon (LXe) dual-phase TPC technologies, the collaboration set several world leading limits on WIMP dark matter. Even after the detector decommissioning in 2016 the analysis work continues. In this presentation, I will give an overview of the recent results published by the LUX collaboration, including: the sub-GeV Dark Matter search, the improvement of the electron recoil detector response model for LXe and the searches applying an effective field theory approach. I will also present some preliminary results of on-going analyses about future detector performance and the re-analysis of the background after the detector decommissioning.

**Author:** RIFFARD, Quentin (Lawrence Berkeley National Laboratory)

**Presenter:** RIFFARD, Quentin (Lawrence Berkeley National Laboratory)

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