

Low Radioactivity Techniques (LRT2022)



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Background Explorer

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Background Explorer is a toolkit for modeling backgrounds in sensitive detectors from radioactive sources. Originally developed for the SuperCDMS dark matter search, it is now open-source and freely available at <https://github.com/bloer/bgexplorer>. The components that make up the detector and shielding system, associated material assays of radioactive contamination levels, and radiation transport simulation outputs are all collected in a MongoDB database. Background Explorer provides a web interface to easily enter and edit all of these quantities, and interactively drill-down into how different sources contribute to the overall background budget, generating tables, charts, and spectra on demand.

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