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## Measurements, system response, and calibration of the SLAC T-510 Experiment

*Saturday 1 August 2015 15:30 (1 hour)*

The SLAC T-510 experiment provides the first beam-test of radio-frequency radiation from a charged particle cascade in the presence of a magnetic field (up to 1kG), a model system for radio-frequency emission from a cosmic ray air shower. The primary purpose of this experiment is to provide a suite of controlled laboratory tests to compare to models based on particle-level models of RF emission, making the calibrations of critical importance. We present here system calibrations and analysis of the experiment from end to end. Measurements of the beam charge and two-dimensional magnetic field map are fed directly into the simulations using the ZHS and Endpoint formalisms. Simulated electric fields are forward-folded with the system response, allowing for direct comparisons of spectra and waveforms with the simulations.

### Collaboration

– not specified –

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