

Measuring light-by-light scattering with the LUXE experiment

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LUXE(Laser Und EuropeanXFEL Experiment) uses collisions of high-energy photons from the electron beam and a high-intensity laser. Quantum electrodynamics predicts the creation of e^+e^- pairs. As the laser intensity increases, so does the field strength, allowing for the first time to probe the so-called critical field. At this high field strength, perturbation theory cannot be applied anymore. In this poster, the planned experimental setup and the expected physics results will be shown.

Group

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