

# The LUXE experiment and the new physics search with optical dump NPOD

*Monday 3 July 2023 21:00 (2 hours)*

The LUXE experiment at the DESY in Hamburg (DE) will study strong-field quantum electrodynamics in the interactions of a beam of electrons or photons with a high-intensity laser. New electrons, positrons, and photons can be created in Compton and Breit-Wheeler processes. The main objective of LUXE is to measure the laser intensity dependence of the matter-antimatter pair production rate. Additionally, the photons produced in the primary interactions can be directed to a beam dump to search for axion-like particles (ALPs).

**Author:** SCHULTHESS, Ivo (University of Bern)

**Presenter:** SCHULTHESS, Ivo (University of Bern)

**Session Classification:** Poster Session 1