



Contribution ID: 352

Type: Oral presentation using Zoom

LUXE-NPOD: new physics searches with an optical dump at LUXE

Wednesday, 27 October 2021 19:00 (30 minutes)

First we briefly introduce the basic concept of LUXE as an experiment. The proposed LUXE experiment (LASER Und XFEL Experiment) at DESY, Hamburg, using the 16.5 GeV electron beam from the European XFEL, aims to probe QED in the non-perturbative regime created in collisions between high-intensity laser pulses and high-energy electron or photon beams. This setup also provides a unique opportunity to probe physics beyond the standard model by a super efficient way to convert an incoming electron flux to an amplified photon flux, which we denote as optical dump. This augmented by a physical dump, placed downstream the beam, allow us to probe models of weakly interacting, spin-0 particles, coupled to photons with upercented precision at the LUXE experiment.

1st preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

2nd preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

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Session Classification: O-1: Fixed target / Dark sectors / Applications outside particle physics

Track Classification: Parallel sessions: Transversal Task Forces: Session O: Fixed target / Dark sectors / Applications outside particle physics