

## **European XFEL Science Seminar**

**TODAY - Tuesday, 11th June 2019, 13:00** 

Campus Schenefeld, XHQ, room E1.173 (coffee & biscuits will be served at 12:30)

## **Beate Heinemann**

**DESY and Freiburg University** 

## The LUXE Experiment at the EU XFEL

I will present the LUXE experiment which plans on using the European XFEL electron beam in Hamburg with an energy of 14-17.5 GeV and a high intensity optical laser to study non-perturbative QED phenomena. The main focus of the experiment will be the measurement of the rate of laser assisted electron-positron pair production in collisions of high energy photons with an intense laser beam and high intensity Compton scattering in electron-laser interaction. The design of the experimental setup, detector systems requirements and simulation results will be presented and discussed.

Host: Serguei Molodtsov