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Commissioning Results From The LUX Beamline For Plasma-Driven Undulator Radiation

Wednesday, September 27, 2017 6:00 PM (15 minutes)

We discuss the commissioning and present first experimental results from the LUX Beamline for plasma-driven undulator radiation. This beamline is built within a close collaboration of the University of Hamburg and DESY, combining university research with the tools and expertise of a large accelerator facility as a sound basis for robust performance for applications. In this talk we will give an overview of the design concept of the beamline, discuss the integration of the laser and the beamline into the accelerator controls system and report on lessons learned from daily operation. We will further present results from the commissioning of the plasma target at high rep-rates, and review results from electron beam transport and diagnostics, as well as the commissioning of our miniature undulator for generation of synchrotron-like undulator radiation.

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