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KALDERA

Wednesday, September 21, 2022 12:00 PM (20 minutes)

Laser-plasma accelerators (LPA) will be at the core of next-generation accelerators. Advancing LPA core technologies, including the development of high average power drive lasers, is an integral part of DESY's accelerator R&D.

We will update on the recent developments of KALDERA, DESY's flagship LPA drive laser currently under development. KALDERA will deliver 100TW LPA drive laser pulses at up to 1kHz repetition rate. These high repetition rates will be crucial to achieve reproducible and application-ready high-quality electron beams through fully exploiting active stabilization techniques and machine learning concepts.

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Session Classification: Special Topic