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## **Simulations of the plasma injector for PETRA IV**

*Friday 26 September 2025 11:30 (30 minutes)*

DESY is pursuing an ambitious laser-plasma injector option for its future flagship high-energy synchrotron light source PETRA IV. Operating at 6 GeV the PETRA IV Plasma Injector will deliver low emittance electron bunches to support all foreseen operation modes. This talk will cover start-to-end simulations of the LPA injector, injection efficiency and charge accumulation in the storage ring, and implications for its commissioning.

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