

Status and recent results of FLASHForward

mercoledì 20 settembre 2023 09:00 (35 minuti)

The realization of the reduced cost and environmental footprint promised by plasma-wakefield-driven free-electron lasers and particle colliders requires that their luminosity and brightness be comparable to that provided by conventional RF-driven facilities. This requires operating at high repetition rates, preserving the beam's energy spread, emittance and charge, and ensuring a high energy-transfer efficiency. In pursuit of this goal, we present new results from the beam-driven plasma-acceleration experiment FLASHForward (DESY, Hamburg), which include: beam quality preservation, a new diagnostic to longitudinally resolve energy-extraction efficiency, and a new record in energy-deposition efficiency.

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Classifica Sessioni: Plenary session

Classificazione della track: Invited