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Positron Source at Future Linear Collider Designs (ILC, HALHF, CLIC)

Positron Sources for high luminosity high-energy colliders with at least a cms of 500 GeV are a challenge for all future lepton colliders as, for instance, the International Linear Collider (ILC), the Compact Linear Collider (CLIC) as well as new concepts as the HALHF collider design. In the talk new R&D developments for the undulator-based positron source are discussed. The talk includes physics requirements, target material tests, current prototypes for optic matching devices as pulsed solenoids as well as plasma lenses. The applicability of an undulator-based positron source in order to provide polarized positrons for all three collider designs is discussed.

Secondary track

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