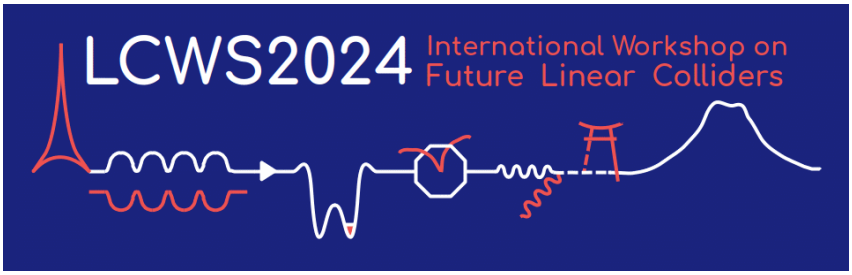

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Design and optimization of the Final Focus System for 7 TeV Compact Linear Collider

Wednesday 10 July 2024 14:40 (20 minutes)

The Compact Linear Collider (CLIC) proposes a linear accelerator system aimed at colliding electrons and positrons at energies up to 3 TeV. To explore novel physics and enhance competitiveness with other collider projects, CLIC is considering increasing the center-of-mass energy to 7 TeV. A crucial component of the CLIC infrastructure is the Beam Delivery System (BDS), responsible for transporting lepton beams from the Main Linac exit to the Interaction Point (IP). This paper presents an overview of the studies and challenges associated with the design of the new Final Focus System (FFS), such as implementing chromaticity correction to mitigate synchrotron radiation effects, and ensuring precise transverse aberration control at the IP.

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