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Collimation studies for FCC-ee

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The Future Circular electron-positron Collider (FCC-ee) is being designed to explore physics beyond the present energy and luminosity frontiers for leptons. To achieve this goal, the FCC-ee must be capable of storing and colliding very high-intensity lepton beams. Handling such intensities poses unique challenges, including the need to safely manage stored beam energies of up to 17.5 MJ. A beam collimation system is therefore indispensable to protect sensitive machine components from damage due to beam losses and to minimize backgrounds in the experimental detectors. This contribution presents the current status of the collimation studies for the FCC-ee baseline optics, including collimation performance evaluations under different beam loss scenarios.

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