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Machine induced backgrounds in the FCC-ee MDI region and Beamstrahlung radiation

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A status update on the beam induced backgrounds studies in the FCC-ee MDI region is presented. Currently under study are the optimisation of the Synchrotron Radiation (SR) shieldings, and background in the detector caused by Incoherent Pair Production (ICP) and beam particles lost during tracking. The turnkey software Key4HEP is being used to track the background particles in the CLD detector in order to estimate the related hit densities. The beamstrahlung radiation produced at the IP has been characterised using GuineaPig in order to estimate the total power and the region where this radiation will hit the beam pipe.

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