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Synchrotron radiation background for an alternative FCC-ee optics

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An alternative lattice and beam optics have been developed for the FCC-ee which aim to provide large dynamic aperture and momentum acceptance via the correction of high order nonlinearities. In this presentation, the synchrotron radiation sources have been evaluated and a synchrotron radiation collimation scheme has been developed to protect the central beam pipe within the particle detector as well as the superconducting quadrupoles closest to the interaction point. Besides, the collimation scheme performances are compared against the baseline lattice.

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