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Robust Modelling of FCC-ee with Analytical Equations and Simulations

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We present the latest results obtained from comparing various codes used for simulating the FCC-ee optics. The three codes used for this study are SAD, MADX and the MADX PTC implementation. The aim of the comparisons is to determine how reliably the codes can simulate various aspects of the accelerator, including the emittance, the linear optics and the dynamic aperture. We will also present the latest finding from applying analytical formulas to the FCC lattice to estimate emittance growth for different kinds of magnet errors.

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