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Proposal of an alternative coupling correction scheme at FCC-ee

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We present preliminary results for an alternative coupling compensation scheme for the FCC-ee IR, based on the novel HFD lattice recently proposed by P. Raimondi, but that in principle can be implemented also in the baseline IR design. The study shows a very good correction of the IR coupling induced by the detector solenoid using skew quads, resulting in an increase of the vertical emittance of only few percents with respect to the nominal value of 1 pm. We discuss the approximations used for these first results, and the plans to continue the study.

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