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## Alignment

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“The FCC-hh (Future Hadron-Hadron Circular Collider) is one of the options considered for the next generation accelerator in high-energy physics as recommended by the European Strategy Group, and the natural evolution of existing LHC. The evaluation of the various magnets mechanical error and field error tolerances in the arc sections of FCC-hh, as well as an estimation of the correctors strengths necessary to perform the error corrections, are important aspects of the collider design.

In this study an exploration of mechanical error, dipolar and quadrupolar field error tolerances is presented, with the possible consequences on the correctors technological choice and on the beam screen design. Different correction schemes of the linear coupling (with skew quadrupoles) and of the beam tunes (with normal quadrupoles) are compared. Also a combined correction scheme including the interaction regions is tested.”

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