FCC Week 2024



Contribution ID: 247

Type: (b) Poster abstract only (one author must be in person)

Input signals for error mitigation by interaction point fast feedback systems for FCC-ee

Thursday 13 June 2024 18:55 (1 minute)

During operation, the Future Circular electron-positron Collider (FCC-ee) will be subject to vibrations from mechanical sources and ground motion, resulting in errors with respect to the closed orbit. To achieve physics performance, luminosity and beam lifetime must be kept to design specifications. To correct for errors at the interaction points (IPs), a fast feedback system is required. We present the tolerances for the allowable beam offsets at the IPs and propose a fast feedback system to address these errors, with the methods of detecting and correcting errors discussed.

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Session Classification: Poster session

Track Classification: FCC accelerators: FCC-ee collider design