

# eeFACT 2025 - 70th ICFA Advanced Beam Dynamics Workshop on High Luminosity Circular e+e-Colliders



Contribution ID: 33

Type: **Invited Oral Presentation**

## Detector backgrounds at FCC-ee

*Wednesday 5 March 2025 10:00 (30 minutes)*

The Future Circular Collider electron-positron (FCC-ee) is a proposed high-energy lepton collider that aims to reach unprecedented precision in the measurements of fundamental particles. However, several beam related processes produce particles in the Machine-Detector Interface (MDI) region, which can adversely affect the measurements' accuracy. This contribution presents the status of the beam-induced backgrounds at FCC-ee. The study uses the turnkey software Key4HEP to estimate the occupancy levels induced by beam-beam interactions, beam losses and Synchrotron Radiation in several sub-detectors of CLD, IDEA and ALLEGRO detector concepts.

### Footnotes

### Funding Agency

### I have read and accept the Privacy Policy Statement

Yes

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**Session Classification:** Machine Detector Interface

**Track Classification:** WG5 : Machine Detector Interface