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## Preliminary results on the electron cloud build-up in the booster of the FCC-ee

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The presence of the electron cloud inside the chamber of high energy accelerators with positively charged circulating beams has been reported and studied by several facilities. Those studies intend to describe and predict which scenarios may present a mayor risk to operating the machine.

The electron cloud build-up inside the vacuum chambers might generate critical effects that diminish the performance of the machine and beam quality. Due to these reasons, it is important to review the possible scenarios to operate at injection and extraction of the beam inside the booster proposed for the FCC-ee. This work reports preliminary studies on electron cloud evolution inside the booster, considering some variations in strategic design parameters, such as the bunch spacing, and secondary emission yield. We compare the simulated electron distribution across the two stages of the beam.

### Footnotes

### Paper preparation format

LaTeX

### Region represented

America

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