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Electron cloud

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Electron clouds can cause several unwanted effects, in particular beam instabilities, emittance growth and tune shifts, as well as additional heat load on the cryogenic system and vacuum degradation. These effects can most efficiently be mitigated by suppressing the formation of electron clouds. In this contribution we present the required conditions for sufficient electron cloud suppression in the FCC-hh, based on simulation studies of electron cloud build-up and its effect on beam stability.

Author: METHER, Lotta (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Co-author: RUMOLO, Giovanni (CERN)

Presenter: METHER, Lotta (EPFL - Ecole Polytechnique Federale Lausanne (CH))

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