



Contribution ID: 72

Type: **not specified**

## Collimation efficiency with imperfections

*Tuesday 10 April 2018 14:20 (20 minutes)*

The future circular collider (FCC-hh) with proton beam energy of 50 TeV and total stored energy of 8.4 GJ requires a collimation system with very high cleaning efficiency to prevent quenches of the superconducting magnets. Collimation performance can be strongly affected by collimator imperfections such as gap errors, jaws deformations, tilt and misalignments. Tracking simulations in SixTrack are presented to study the cleaning efficiency deterioration of the present collimation layout due to imperfections.

**Author:** SERLUCA, Maurizio (Centre National de la Recherche Scientifique (FR))

**Co-authors:** BRUCE, Roderik (CERN); Dr MOLSON, James (CERN); REDAELLI, Stefano (CERN); LAMANNA, Giovanni (Centre National de la Recherche Scientifique (FR))

**Presenter:** SERLUCA, Maurizio (Centre National de la Recherche Scientifique (FR))

**Session Classification:** FCC-hh accelerator

**Track Classification:** EuroCirCol