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Beam dynamics and tolerance studies of the C3 main linac

Thursday 29 August 2024 16:00 (2 hours)

The Cool Copper Collider (C3) is an advanced accelerator concept for a e+ e- linear collider that utilizes a cryogenically-cooled copper accelerator technology. The C3 linac is envisioned to accelerate e+ and e- beams from 10 GeV to 125 GeV for a 250 GeV center of mass collisions. To reach the target luminosity, emittance has to be preserved through the whole main linac, taking into account alignment and vibration errors. Here we present the beam dynamics analysis for the C3 main linac. We show the beam dynamics of the main linac and results of the tolerance studies.

Footnotes

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