



Contribution ID: 521 Contribution code: MOPL175

Type: **Poster Presentation**

Considerations for a new damping ring design of the FCC-ee pre-injector complex

Monday, 8 May 2023 16:30 (2 hours)

The current injector complex design of the FCC-e+e- project consists of e+/e- linacs, which accelerate the beams up to 6 GeV, a damping ring at 1.54 GeV, a pre-booster ring, accelerating the beam up to 16 GeV and a booster synchrotron ring integrated in the collider tunnel accelerating the beams up to the collision energies. The purpose of the damping ring is to accept the 1.54 GeV beam coming from the linac-1, damp the positron/electron beams and provide the required beam characteristics for the injection into the linac-2. The purpose of this paper is to provide a new layout of the damping ring. In this study, the beam parameters are established, including the optics design, layout and consideration for non-linear dynamics optimization.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: ETISKEN, Ozgur (Kirikkale University)

Co-authors: MILARDI, Catia (Istituto Nazionale di Fisica Nucleare); RAIMONDI, Pantaleo (European Synchrotron Radiation Facility)

Presenters: ETISKEN, Ozgur (Kirikkale University); RAIMONDI, Pantaleo (European Synchrotron Radiation Facility)

Session Classification: Monday Poster Session

Track Classification: MC1: Colliders and other Particle Physics Accelerators: MC1.A10: Damping Rings