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Damping ring and transfer lines for the FCC-ee pre-injector complex

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The Future Circular Collider project is built around two main pillars: the construction of 100 km lepton collider running at increasing energies from the Z-pole to the t-tbar threshold (FCC-ee) followed by a hadron collider in the same tunnel (FCC-hh) to explore unprecedented energy frontier.

The realization of FCC-ee relies on a very challenging injector complex that should provide the highest ever realized source of positrons, which will serve the first phase of the collider operations (Z-pole). In this contribution the relevant aspects related to the damping of the high-emittance beam coming from the positron source and the transport of the damped beam within the different LINACs of the injector complex are presented and discussed.

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