

Low Level RF Workshop 2022



9-13 Oct 2022, Brugg-Windisch, Switzerland



Contribution ID: 2

Type: **Oral**

Keynote talk: FCC-ee Injector design and the PSI Positron Production project

Monday, October 10, 2022 8:25 AM (30 minutes)

In this contribution, an overview of the injector complex design for the electron-positron Future Circular Collider (FCC) will be given and a summary of the injector parameters will also be presented, focusing on the most challenging ones for the different injector subsystems. Furthermore, since the FCC is designed to operate at the extreme end of the parameters, a positron source with a high positron yield is required. The use of new coupling and focusing methods have been investigated, such as high-temperature superconducting solenoids (HTS), where recent simulations showed a significantly higher positron yield than the state of the art. To explore this potential, an experiment, the PSI Positron Production (P-cubed) project, is planned in the 6 GeV SwissFEL linac at the Paul Scherrer Institut (PSI) and an overview of the experiment will also be presented.

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Session Classification: Welcome Session

Track Classification: Low Level RF Workshop 2022