Contribution ID: **324** Type: **Oral presentation (remote)**

Update on the FCC-ee Positron Source

Wednesday 10 July 2024 17:40 (20 minutes)

Studies and R&D on the high-intensity positron source for the FCC-ee are ongoing as part of the FCC Feasibility Study. The current baseline design relies on a conventional positron production scheme. Recently, a feasibility study on using a superconducting (SC) solenoid for positron capture has begun, with a design based on High-Temperature Superconductor (HTS) technology currently adopted for the matching device. Simulation studies have been conducted to estimate the overall performance of the positron source using the HTS solenoid capture system, compared to a system using a Flux Concentrator. Additionally, the conceptual design of a crystal-based positron source for the FCC-ee is well advanced and will be discussed.
In this presentation, we will review the current status of the FCC-ee positron source design, highlighting recent research on positron production, the capture system, primary acceleration, and injection into the damping ring.

Apply for poster award

Primary author: CHAIKOVSKA, Iryna (Université Paris-Saclay (FR))

Presenter: CHAIKOVSKA, Iryna (Université Paris-Saclay (FR))

Session Classification: Sources

Track Classification: Accelerator: Sources