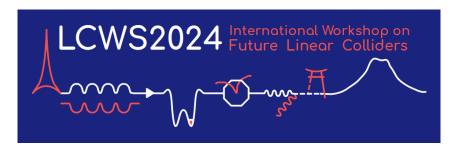
## International Workshop on Future Linear Colliders, LCWS2024



Contribution ID: 256

Type: Oral presentation (remote)

## The positron source of STCF in China

Tuesday 9 July 2024 10:00 (20 minutes)

The proposal for a new generation high-luminosity electron-positron collider, the Super Tau-Charm Facility (STCF), has been put forward in China. The STCF is expected to achieve a luminosity greater than  $0.5 \times 1035$  cm-2 s-1 and operate within a center-of-mass energy range of 2 to 7 GeV. Considering the design challenges of the STCF collider ring, swap-out injection has been suggested as one of the alternative injection methods to achieve the desired luminosity. Therefore, the STCF injector will investigate both off-axis injection and swap-out injection methods concurrently. The demand for positron injection charge under swap-out injection is much higher than that of off-axis injection, requiring at least 300nC/s positron injection. Two positron source designs for both off-axis and off-axis injection will be presented in this paper.

## Apply for poster award

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Session Classification: Sources

Track Classification: Accelerator: Sources