FUTURE
CIRCULAR
COLLIDER

Contribution ID: **56**   Type: **(a) Talk abstract only**

Development of Spin Tracking in XSuite

Thursday 22 May 2025 13:50 (20 minutes)

The Future Circular Collider of electrons and positrons (FCC-ee) requires high precision measurements of beam energy. This is foreseen to be facilitated by measuring the depolarization of non-colliding electron bunches. Spin tracking is being developed for the XSuite accelerator code package for polarization studies in the FCC-ee. Installation in XSuite will make spin tracking more accessible to the accelerator community. An overview of the spin tracking algorithm, benchmarking progress, and implementation into XSuite are given.

Author: HOCK, Kiel

Co-authors: IADAROLA, Giovanni (CERN); HUANG, Haixin (Brookhaven National Lab); KEINTZEL, Jacqueline (CERN); RANJBAR, Vahid; SCHOEFER, Vincent (BNL); JING, Yichao (BNL)

Presenter: HOCK, Kiel

Session Classification: Joint effort PED & accelerators

Track Classification: Physics, Experiments and Detectors: EPOL