Investigation on the CEPC polarization

At CEPC Z-pole energy, transverse beam polarization are necessary for resonant depolarization-based beam energy calibrations, while longitudinal polarized colliding beams are favored to broaden the potential of the physics program. In this presentation, we first introduce how these two aspects are expected to be organized in the collider operation, then we’ll present some updates on the simulation of equilibrium beam polarization in the collider ring. Next, we’ll focus on the implementation of the longitudinally polarized colliding beams, and present some progress in the polarization maintanance in the booster, followed by the spin rotator designs in the collider ring.