

eeFACT 2025 - 70th ICFA Advanced Beam Dynamics Workshop on High Luminosity Circular e+e-Colliders



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CEPC polarization status

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Polarized lepton beams are essential for the physics program of the Circular Electron Positron Collider, their applications include precision beam energy calibration based on resonant depolarization technique and longitudinally polarized colliding beams. To this end, we proposed a scheme including generating polarized beams from the source, transmitting throughout the injector chain, and injecting into the collider rings, where spin rotators have been designed to achieve longitudinal polarization at the Z-pole. Now we've been working on key technology R&Ds, including the development of a polarized electron source, demonstration of a Compton polarimeter at the BEPCII, and a prototype of an HTS-based solenoid spin rotator. These will pave the way for the future implementation of polarized beams at the CEPC.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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