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Calibrating the energy at the Future Circular electron-positron Collider

The ultimate goal of the Future Circular electron-positron Collider is performing particle physics experiments at an unprecedented precision from the Z-pole up to above the top-pair-threshold. This demands, among others, an excellent knowledge of the center-of-mass energy and, hence, the beam energies. By depolarizing polarized pilot bunches with a RF-kicker and recording the change of polarization with a 3D Compton polarimeter, it is aimed to measure the spin tune, which is directly linked to the beam energy. The current status of the plans for energy calibration at FCC-ee is presented.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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