

Accelerating and Injecting Polarized Beams

Thursday, 14 April 2016 09:10 (20 minutes)

Polarized electron and positron beams are needed for precise energy calibration in storage rings of FCC-ee collider. Such beams will be produced in special low-energy damping rings using superconducting wigglers and Sokolov-Ternov self-polarization mechanism. Next step assumes acceleration of polarized bunches in sequence of synchrotrons up to 45 - 120 GeV. The solenoid type spin rotators will ensure the preservation of beam polarization during the energy ramp. The resonant depolarization technique and, alternatively, the free spin precession approach shall provide the extremely accurate energy determination of beams in future FCC-ee collider. All these topics are briefly discussed in the report.

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Session Classification: FCC-ee Energy Calibration & Polarisation

Track Classification: Accelerators