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【205】 First Exploration of Spin Polarization Simulations in the Future Circular Collider e+e- using Bmad

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Resonant depolarization measurements offer a promising method for the high precision center-of-mass energy calibration that can be applied in the FCC-ee. Simulations need to be performed to validate the obtainable polarization limits under the influence of perturbed orbits. This study offers the first exploration of the FCC-ee spin polarization simulations using Bmad. The relations between the linear polarization limits and the energies under different conditions have been investigated. The results of benchmarks with SITROS as well as the results of nonlinear spin tracking using the Long Term Tracking module in Bmad are presented.

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