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[206] Modeling of beam-beam effects in future circular lepton colliders

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The FCC-ee (Future Circular Collider) lepton collider is currently the most favored next generation research infrastructure project at CERN, aimed at studying properties of standard model particles with the highest precision ever.

The chosen parameters of the machine yield unprecedented conditions which give rise to previously unseen dynamical effects during collisions. The exploration and understanding of these beam-beam effects is of crucial importance for the success of the FCC-ee feasibility study. To address this challenge, a new general purpose software framework for beam dynamics simulations is currently under development at CERN. This presentation will discuss the contributions to the software development related to beam-beam effects with benchmarks studies and applications.

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