Abstract Submitted
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Modeling of ion orbit loss and intrinsic toroidal rotation with the COGENT code[1] M. DORF, M. DORR, Lawrence Livermore National Laboratory, R. COHEN, CompX, T. ROGNLIEN, J. HITTINGER, Lawrence Livermore National Laboratory — We discuss recent advances in cross-separatrix neoclassical transport simulations with COGENT, a continuum gyro-kinetic code being developed by the Edge Simulation Laboratory (ESL) collaboration. The COGENT code models the axisymmetric transport properties of edge plasmas including the effects of nonlinear (Fokker-Planck) collisions and a self-consistent electrostatic potential. Our recent work has focused on studies of ion orbit loss and the associated toroidal rotation driven by this mechanism. The results of the COGENT simulations are discussed and analyzed for the parameters of the DIII-D experiment.

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