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Bounce-averaged Fokker-Planck Simulation of Runaway Avalanche from Secondary Knock-on Production[1] S.C. CHIU, V.S. CHAN, *General Atomics*, R.W. HARVEY, *CompX*, M.N. ROSENBLUTH, *ITER-San Diego* — It has been pointed out that secondary production of runaway electrons by knock-on collisions with very energetic confined electrons can significantly change the runaway rate,[2,3,4] and is potentially a serious problem in reactors. Previous calculations of the effect have only partially included important effects such as toroidal trapping, synchrotron radiation, and bremsstrahlung. Furthermore, in a normal constant current operation, the increase of the density of runaway electrons causes a decrease of the ohmic field and all these effects can balance to a steady-state. The purpose of the present paper is to present results on bounce-averaged Fokker-Planck simulations of knock-on avalanching runaways including these effects. Initially, an energetic seed component is inserted to initiate knock-on avalanching. Results on the dependence of the steady-state runaway current on $Z_{\rm eff}$, density, and radial location will be presented.

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