

Abstract Submitted
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A Nonlinear evolution of tearing mode with resistivity and hyper-resistivity¹ DING LI, WEN YANG, Institute of Physics, Chinese Academy of Sciences, XUEQIAO XU, Lawrence Livermore National Laboratory — A quasilinear model has been developed for nonlinear tearing mode with resistivity and hyper-resistivity in which only the quasilinear current effect has been taken into account. The nonlinear evolution equation has been derived analytically by using the perturbation method. It is shown that the nonlinear evolution of flux perturbation depends on both resistivity term and hyper-resistivity term. It is found that the hyper-resistivity plays a destabilizing effect.

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