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Kinetic Effects on Resistive Tearing Mode¹ HAO SHI, Univ of Sci Tech of China, WENLU ZHANG, Chinese Academy of Sciences (CAS) — The kinetic effects on stability of resistive tearing mode are investigated by global simulations in cylindrical geometry using Gyrokinetic Toroidal Code(GTC). The fluid simulation of resistive tearing mode agrees well with theory prediction. Kinetic effects are found to reduce the growth rate of the tearing mode and the radial width of mode structure. The drift-tearing mode is obtained when considering density gradient, which has the frequency of the diamagnetic drift frequency.

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