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## Impact of Kinetic Effects of Energetic Particles on Resistive Wall Mode Stability in Rotating High-beta Plasmas

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We found that inclusion of self-consistent rotation effect in the energetic particles' dynamics has significant impact on resistive wall mode (RWM) stability in tokamaks. For the first time, we apply the extended kinetic-magnetohydrodynamic (MHD) theory for rotating plasmas to energetic particles. The theory invokes an extended energy exchange term between the MHD mode and energetic particles' motion. In this study, the extended theory has been applied to RWM stability analysis in high- $\beta$  JT-60SA plasmas. By using a new model equilibrium distribution function of energetic particles, it is found that extended energy exchange terms enhance the stabilization effect.

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Japan

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