

Abstract Submitted  
for the DPP12 Meeting of  
The American Physical Society

**Gyrokinetic simulations of electrostatic drift modes with statistic neoclassical islands** PENG JIANG, University of California, Irvine — Statistic neoclassical islands have been added to the gyrokinetic toroidal code (GTC). And the influence of neoclassical islands on the stability of electrostatic drift modes is studied in toroidal geometry. The main effect of islands on equilibrium is the modification on the density and temperature gradients, which induces the new equilibrium particle distribution function. Linear and nonlinear gyrokinetic simulations are used to clarify the influence of the new equilibrium on electrostatic drift modes.

Peng Jiang  
University of California, Irvine

Date submitted: 12 Jul 2012

Electronic form version 1.4