

Abstract Submitted
for the DPP08 Meeting of
The American Physical Society

Gyrokinetic analysis of shear flow instability in torodial geometry

EISUNG YOON, T.S. HAHM, Princeton Plasma Physics Laboratory — Motivated by recent observation of intrinsic rotation in tokamak plasmas, we study linear stability of ion gyroradius scale short wavelength fluctuations in the presence of sheared parallel flow, ion temperature gradient, and toroidal mode coupling. Our gyrokinetic approach in toroidal geometry is an extension of previous studies including those by Catto et al., [Phys. Fluids **16** 1719 (1973)] Mattor and Diamond [Phys. Fluids **31** 1180 (1988)], and Artun and Tang [Phys. Fluids B **4** 1102 (1992)].

Eisung Yoon
Princeton Plasma Physics Laboratory

Date submitted: 14 Jul 2008

Electronic form version 1.4