**Breaking Quasi-translational Invariance of Toroidal Eigenmodes**

T. NOBU, Iwamura Electric Co. Osaka, Japan, P.H. DIAMOND, M. YAGI, Kyushu University, Fukuoka, Japan, T.S. HAHM, PPPL, USA — Toroidal eigenmode structure in the presence of strong $\mathbf{E} \times \mathbf{B}$ shear is examined to explore a possible spontaneous symmetry breaking in the parallel wave vector of turbulence which can contribute to radial flux of toroidal angular momentum. Even in the weak shear limit, FULL code [1]results have shown a significant departure of mode structure from the usual ballooning-type eigenmode towards the CZC-like [2] mode structure with the amplitude peaking between rational surfaces. In the strong shear limit, Ballooning Mode Formalism is confusing and invalid. At the low B field side, the radial eigenmode equation can be reduced to the Whittaker's form which should obey the Berk outgoing wave condition [3]. However, the magnetic shear induced damping is negligible and the most effective damping is from the perpendicular $\mathbf{E} \times \mathbf{B}$ flow shear.

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