Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Stabilization of ion temperature gradient driven modes by lower hybrid wave in a tokamak ANIMESH KULEY[1], V.K. TRIPATHI, Indian Institute of Technology Delhi — A gyro kinetic formalism has been developed to study lower hybrid wave stabilization of ion temperature gradient (ITG) driven modes, responsible for anomalous ion transport in the inner region of tokamak. The parametric coupling between lower hybrid and drift waves produce lower hybrid sideband waves. The pump and the sidebands exert a ponderomotive force on electrons, modifying the eigen frequency of the drift wave and influencing the growth rate. The longer wavelength drift waves are destabilized by the lower hybrid wave while the shorter wavelengths are suppressed.The requiste lower hybrid power is in the range $\sim$ 900kW at 4.6 GHz.

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Date submitted: 29 Dec 2008 Electronic form version 1.4