Abstract Submitted
for the DPP08 Meeting of
The American Physical Society

Lower hybrid parametric decay into fast phase velocity waves and generation of relativistic electron into tokamak ANIMESH KULEY, VIPIN TRIPATHI, Indian Institute of Technology Delhi — A plausible route to production of MeV electron in the scheme of lower hybrid (LH) current drive in tokamak is presented. The large amplitude lower hybrid pump parametrically excites a fast lower hybrid wave, once the plasma density exceeds a density threshold. The sideband usually is frequency downshifted. However, with runaway electrons it can be even frequency up shifted. The decay wave, on saturation acquires large amplitude, and accelerates electrons electron to MeV energies via Cerenkov resonance.

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Date submitted: 27 May 2008 Electronic form version 1.4