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[ ] Theory [**X**] Experiment

Particle Transport in RMP H-modes,* R.A. Moyer, V.A. Izzo, S. Mordijck, J.A. Boedo, D.L. Rudakov *UCSD*, T.E. Evans, N.H. Brooks, P. Gohil *GA*, E.A. Unterberg *ORISE*, M.E. Fenstermacher *LLNL*, H. Frerichs, O. Schmitz, B. Unterberg *FZJ,* M.W. Jakubowski *MPI*, J.G. Watkins *SNL,* G.R. McKee, *UW-Madison,* T.L. Rhodes, L. Schmitz, L. Zeng, *UCLA,* C.S. Chang, G. Park, *NYU* – Increased transport in resonant magnetic perturbations (RMP) H-modes reduces the pedestal pressure gradient below the Type I ELM stability limit. The RMP induces more particle transport and less electron thermal transport than expected from simple stochastic transport models. This increased transport starts during the RMP rise-time, and displays a broader resonance in q_{95} than ELM suppression. Evidence suggests that the transport is at first caused by a combination of neoclassical transport in the 3D equilibrium, **E**x**B** convection in the weakly stochastic layer, and fluctuation-driven transport. After the ELMs are suppressed, fluctuations increase due to E_r shear changes. Optimizing these transport changes will improve the viability of RMP ELM-control for ITER.

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