

Abstract Submitted
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Observations of Thermal Transport Enhancement in Stochastic Boundary Experiments at DIII-D and TEXTOR¹ O. SCHMITZ, H. FRERICHS, FZJ, M.E. AUSTIN, U. Texas-Austin, B.D. BRAY, T.E. EVANS, T.H. OSBORNE, GA, H. REIMERDES, Columbia U., M.E. FENSTERMACHER, C.J. LASNIER, LLNL, M.W. JAKUBOWSKI, MPI, S. MORDIJCK, R.A. MOYER, UCSD, E.A. UNTERBERG, ORISE — Comparison of stochastic boundary experiments in TEXTOR L-modes to DIII-D H-modes shows on both experiments a q_{95} resonance in the pedestal pressure p_e which is driven by a resonant decrease of the pedestal electron temperature T_e as q_{95} is varied. This decrease in T_e is correlated to an increase in the modeled stochastic layer width while the electron density does not show a strong q_{95} resonance. The T_e decrease is only seen for DIII-D in an ITER similar shape at high triangularity as opposed to an increase in T_e and a small effect only on the thermal transport for low triangularity plasmas. This indicates significant shape dependence for the q_{95} resonant thermal transport features in stochastic boundary experiments for suppression of type-I edge localized modes by RMP at DIII-D.

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