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**3D Field-Induced Transport and Plasma Response Leading to ELM Suppression in DIII-D**[1] S.P. SMITH, C. PAZ-SOLDAN, R.J. GROEBNER, General Atomics, O. MENEGHINI, ORAU, R. NAZIKIAN, B.A. GRIERSON, PPPL, M.E. AUSTIN, U. Texas-Austin, J.D. CALLEN, U. Wisc.-Madison, E.M. DAVIS, MIT, R.A. MOYER, UCSD, T.L. RHODES, G. WANG, L. ZENG, UCLA — A clear increase in trapped electron mode (TEM) scale density fluctuation levels ne is seen at the top of the pedestal as the plasma transitions from edge localized mode (ELM)ing to ELM suppression with applied 3D resonant fields. Additional increases in $T_e$ fluctuations and line-integrated ne at the top of the pedestal are seen as the 3D field strength is increased. High resolution $T_e$ and $n_e$ profile measurements near the top of the pedestal show strong transport scaling with the applied field ($l/L_{Te}$, $1/L_{ne} \sim I_c^2$) during ELM suppression. These latter results are consistent with the magnetic flutter model regulating transport at the top of the pedestal, possibly driven by kink mode coupling, however the former results support a 3D modification of microturbulence stability as the process by which ELMs are suppressed.

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