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**Collisionality scaling of turbulence and transport in advanced inductive plasmas in DIII-D** Z. YAN, G.R. MCKEE, U. Wisc-Madison, C. PETTY, T. LUCE, X. CHEN, GA, C. HOLLAND, UCSD, T. RHODES, L. SCHMITZ, G. WANG, L. ZENG, UCLA, A. MARINONI, MIT, W. SOLOMON, PPPL, DIII-D TEAM — The collisionality scaling of multiscale turbulence properties and thermal transport characteristics in high-beta, high confinement Advanced Inductive (AI) plasmas was determined via systematic dimensionless scaling experiments on DIII-D. Preliminary estimate indicates a weak collisionality dependence of energy confinement as $v^*$ varied by a factor of $\sim$2. Electron density and scaled ($\sim {B_t}^2$) temperature profiles are well matched in the scan. Interestingly, low-k density fluctuation amplitudes are observed to decrease at lower $v^*$ near $\rho \sim 0.75$. Ion and electron thermal transport values, computed with ONETWO using experimentally measured profiles and sources, will be presented, along with multi-scale turbulence measurements obtained with various fluctuation diagnostics. Altering collisionality should change the relative contribution of different modes to transport.

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