## Abstract Submitted for the DPP01 Meeting of The American Physical Society

Sorting Category: 5.6.2 (Experimental/Observational)

Fluctuation Characteristics of the QDB Regime in **DIII-D**<sup>1</sup> L. ZENG, E.J. DOYLE, T.L. RHODES, G. WANG, W.A. PEEBLES, University of California, Los Angeles, G.R. MCKEE, R.J. FONCK, U. Wisconsin, C.M. GREENFIELD, General Atomics — A new sustained high-performance operating mode, the quiescent double barrier (QDB) regime has been identified in DIII-D. The QDB regime contains compatible core and edge transport barriers. FIR scattering and reflectometer data show that core turbulence is not eliminated. High frequency quasi-coherent modes are often visible in scattering data, and reflectometer data indicates these are localized to  $\rho \sim 0$ -0.4. In QDB plasmas, the core correlation lengths are significantly lower than observed in L-mode. A continuous edge harmonic oscillation (EHO) is normally associated with QDB operation. High resolution reflectometer measurements show that this scrape-off layer density profile is modulated at the fundamental EHO frequency, and indicate that the peak of the EHO is located at the base of the edge profile pedestals, at or slightly outside the separatrix, in good agreement with beam emission spectroscopy measurements.

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