

**Abstract Submitted for the 54th Annual Meeting
Division of Plasma Physics
October 29 through November 2, 2012
Providence, Rhode Island**

Category Number and Subject:

Theory Experiment

Evolution of Edge Pedestal Profiles Between ELMs,* J.-P. Floyd, W.M. Stacey, *Georgia Institute of Technology*; and R.J. Groebner, *General Atomics* – The measured edge profile evolution in DIII-D discharges is analyzed in terms of the implied thermal diffusivities, ion diffusion coefficients and pinch velocities, using the momentum-balance methodology of Ref. [1], extended to take into account ion orbit loss and X-point loss. The evolution of the density, temperature, rotation and radial electric field profiles in the edge pedestal between edge localized modes (ELMs) provides information of these diffusive and non-diffusive transport processes in the pedestal of H-mode plasmas. This methodology is incorporated in the GTEDGE code developed for DIII-D data interpretation. Using a smaller integration time for the CER measurements than in Ref. [1] allows a more detailed examination of the time evolution of the ion temperature and rotation profiles.

[1] W.M. Stacey and R.J. Groebner, *Nucl. Fusion* **51**, 063024 (2011).

*Work supported by US Department of Energy under DE-FG01-ER54538 and DE-FC02-04ER54698/