Abstract Submitted
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Evolution of Edge Pedestal Profiles Between ELMs[1] J.P. FLOYD, W.M. STACEY, Georgia Institute of Technology, 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 GT-EDGE code developed for DIII-D data interpretation. Using a smaller integration time for the charge exchange recombination 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).

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