

Abstract Submitted
for the DPP09 Meeting of
The American Physical Society

Generalized Diffusion Theory Calculations of the Edge Pedestal Density Profile¹ J.-P. FLOYD, W.M. STACEY, Georgia Tech — It has been shown [1] that momentum balance requires a pinch-diffusion form of the radial particle flux in the edge plasma. Combined with the particle conservation requirement, this implies that the particle density satisfies a generalized diffusion equation with a convective term. This equation will be solved numerically and compared with the measured density profile in a DIII-D H-mode shot.

[1] W.M. Stacey, *Contrib. Plasma Phys.* **48**, 94 (2008).

¹Work supported in part by the US DOE under DE-FG02-00ER54538 and DE-FC02-04ER54698.

J.-P. Floyd
Georgia Tech

Date submitted: 17 Jul 2009

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