Generalized Diffusion Theory Calculations of the Edge Pedestal Density Profile,* 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.


*Work supported in part by the US DOE under DE-FC02-04ER54698.