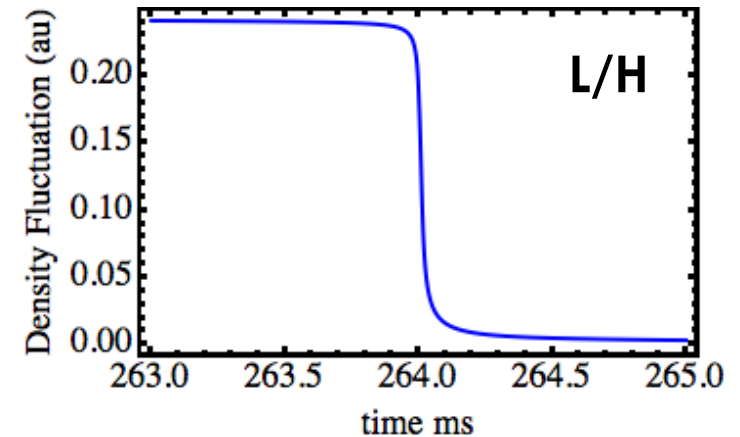


L/H-TRANSITIONS AND LIMIT CYCLE OSCILLATIONS FROM MEAN FIELD TRANSPORT EQUATIONS

- Both single-step L/H transitions and dithering limit cycle oscillations (LCO) can be simulated with the mean field transport equations.
 - Both toroidal and parallel momentum transport are required.
- Using data from a DIII-D discharge:
 - The frequency of the LCO can be matched.
 - The timescale of the L/H transition velocity “trigger” agrees with data.
- Mean field (i.e. low frequency) transport equations can predict H-mode dynamics **much faster than turbulence simulations.**
- G.M Staebler and R. J. Groebner
 - TH/P5-12

Transport Simulations High Density



Low Density

