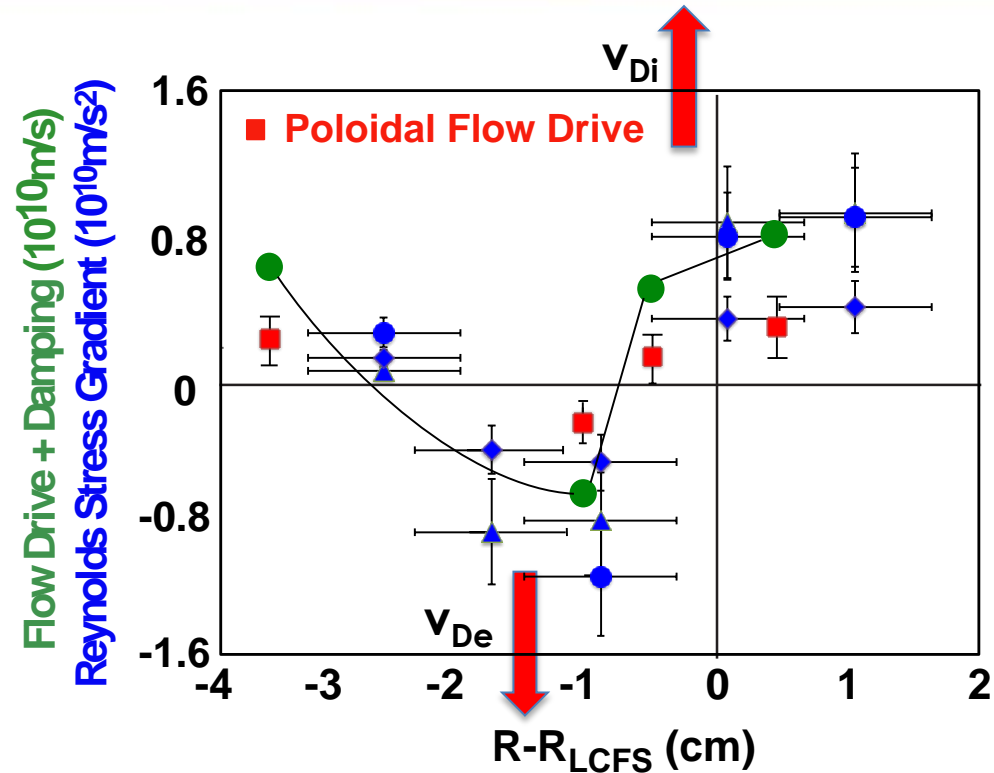


Ion Poloidal Flow Driven via Reynolds Stress Triggers Formation of H-mode Transport Barrier

EX/P3-11

- **Dipolar Flow Layer Produces Strong $E \times B$ Shear Inside LCFS**
 - Reynolds stress gradient explains dipolar poloidal flow acceleration across edge preceding the L-H transition
 - Poloidal flow damping consistent with neoclassical plateau regime
 - Edge pressure gradient increases **after** poloidal flow



Measured via BES and DBS within 2 ms of transition

Reynolds-stress-driven ion flow produces sufficient $E \times B$ shear to Initiate quench of L-mode turbulence