

A Low Plasma Current (~ 8 MA) Approach for ITER's $Q=10$ Goal – S. Ding EX/1-TH/1-3

- Low plasma current approach, based on high β_p scenario, addresses challenges from uncontrolled ELM, divertor heat load and disruption risk for ITER's $Q=10$ goal
- Self-consistent 1D integrated modeling predicts $Q=10$ for ITER at $I_p \sim 7-9$ MA
- ITER's 500 MW fusion power goal, with $Q > 10$, is predicted at $\beta_N > 3.1$
- DIII-D high β_p experiments support the physics basis of ITB formation predicted in the ITER simulations
 - Achieved similar large radius ITB at ITER relevant q_{95} and density

