Wide-Pedestal QH-mode Initiated and Sustained with Zero Injected NBI torque throughout, and Sustained with Dominant Electron Heating (77% ECH power)

- Achieved zero injected NBI torque throughout
- Confinement improves with electron heating
- $T_e$ internal transport barrier forms due to electron heat pinch
  - Pinch measured by Fourier analysis: increases $R/L_{Te}$ by 2.4x
- Dominantly electron-heated Wide Pedestal QH-mode is an attractive scenario for ITER
  - Transition from QH-Mode to
    - 65% wider and 60% higher pedestal
    - $H_{98y2}$ increases 45%
    - Pedestal regulated by turbulence
    - No ELMs or low mode number MHD
    - ITER collisionality

Ernst, Burrell, Petty, Barada, Chrystal et al, EX/2-2

D. R. Ernst et al., Viability of Wide Pedestal QH-Mode for Burning Plasma Operation, EX/2-2