

- Dedicated intrinsic torque experiments using a novel 2Hz NBI modulation technique have been performed for the first time in AUG.
- A 4-point plasma current scan with q_{95} ranging from 4 up to 11 was performed. The integrated intrinsic torque increases from 1.5Nm at $I_p=0.4\text{MA}$ to 4Nm at $I_p=1.0\text{MA}$. (figure 1)
- The effect of ECRH was studied in two 600 kA H-mode plasmas by injecting ECRH in the latter half of the NBI heated discharge.
- All the evidence indicates that the experimental data is best reproduced with a combination of off-axis counter-current torque (and possibly a small co-intrinsic torque in the centre at $\rho < 0.2$) together with outward convection around the radius where the ECRH power is deposited. (figure2)
- The present intrinsic torque profiles have quite large error bars and the profiles will change a bit when taking into account the small time variation in the confinement time due to modulation.

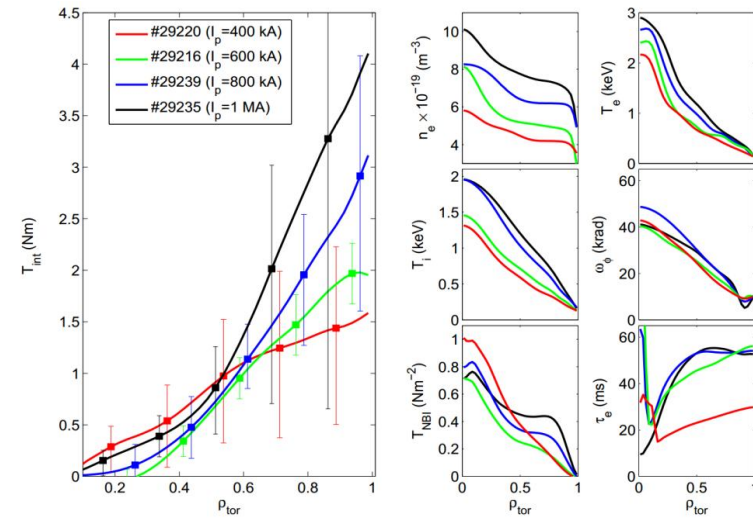


Figure 1. Volume integrated intrinsic torque profiles and the time averaged plasma profiles in the 4-point q-scan.

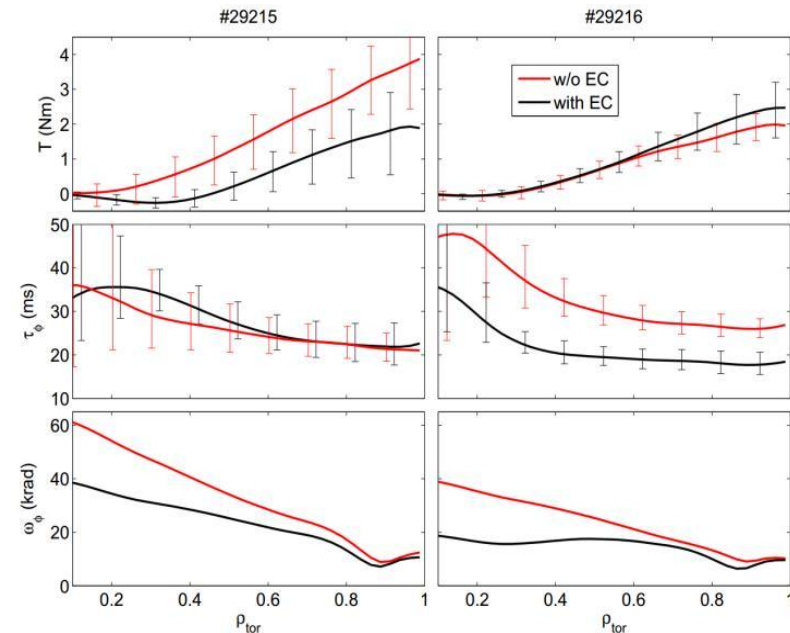


Figure 2 . Comparison of intrinsic torque (upper frames), momentum confinement time (middle frames) and steady-state rotation (lower frames) before and during the ECRH phase for two AUG shots at different NBI power.