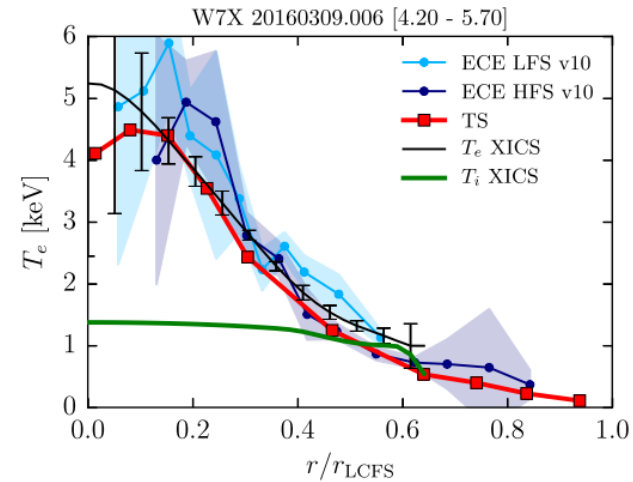
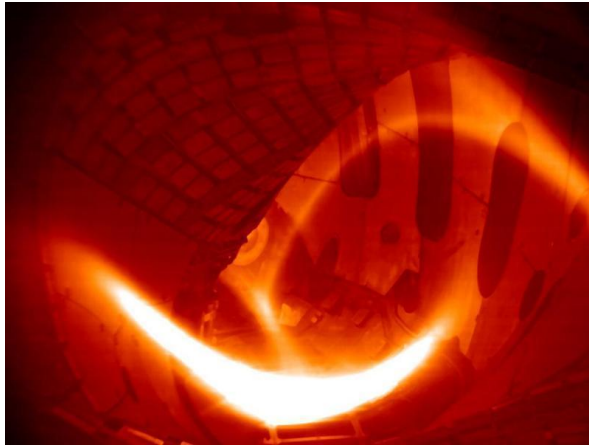


First plasma operation of Wendelstein 7-X

10 weeks of plasma operation from 10 Dec 2015 until 10 March 2016



Integral commissioning of superconducting stellarator, device control, plasma heating systems and diagnostics

ECRH power up to 4.3 MW, $T_e \leq 8$ keV, $T_i \leq 2$ keV, $n_e \sim 3 \times 10^{19} \text{ m}^{-3}$, pulse durations up to 6 sec ($\int P dt \leq 4$ MJ)

Studies of plasma start-up, power balance, confinement (core electron-root conf.), bootstrap current, on-/off-axis heating, X2- and O2-ECRH, ECCD, plasma exhaust and SOL physics