



Exp F03 High Te plasmas

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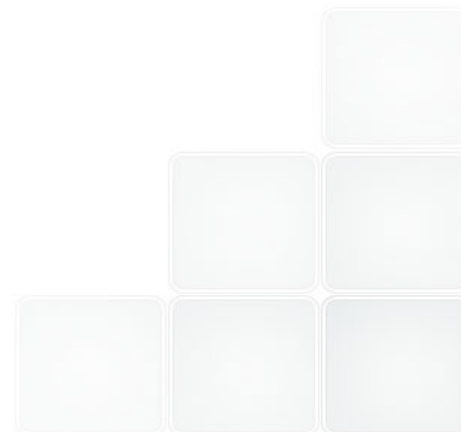


Goals

- **Obtain high $T_e \geq 10 \text{keV}$ using ECRH on-axis deposition** on current ramp
- compare Thomson Scattering and ECE temperature measurements.

Scenario

- reference shots #43100 ($T_{e\text{MAX}} = 14 \text{keV}$) and
- #38547 ($T_{e\text{MAX}} = 11.2 \text{KeV}$)
- Check the plasma position control
- Start with relatively slow current ramp (#38547) and then increase the derivative of current (#43100, #43101)





F03 High Te plasmas



Requirements

Toroidal magnetic field $B_T(T)$: 5.2T

Plasma current $I_p(MA)$: 0.5

Electron density ($10^{20}m^{-3}$): 0.2-0.4

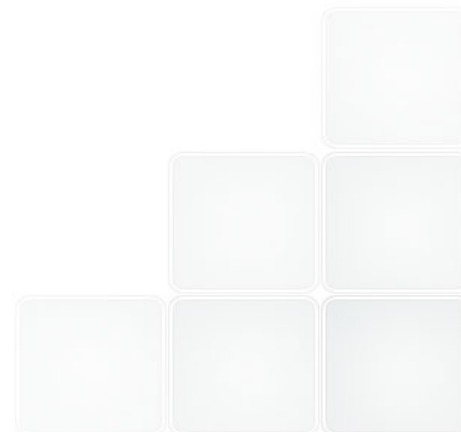
ECRH (MW): >0.4

Diagnostics

Thomson Scattering , ECE Michelson , ECPfast

Modelling

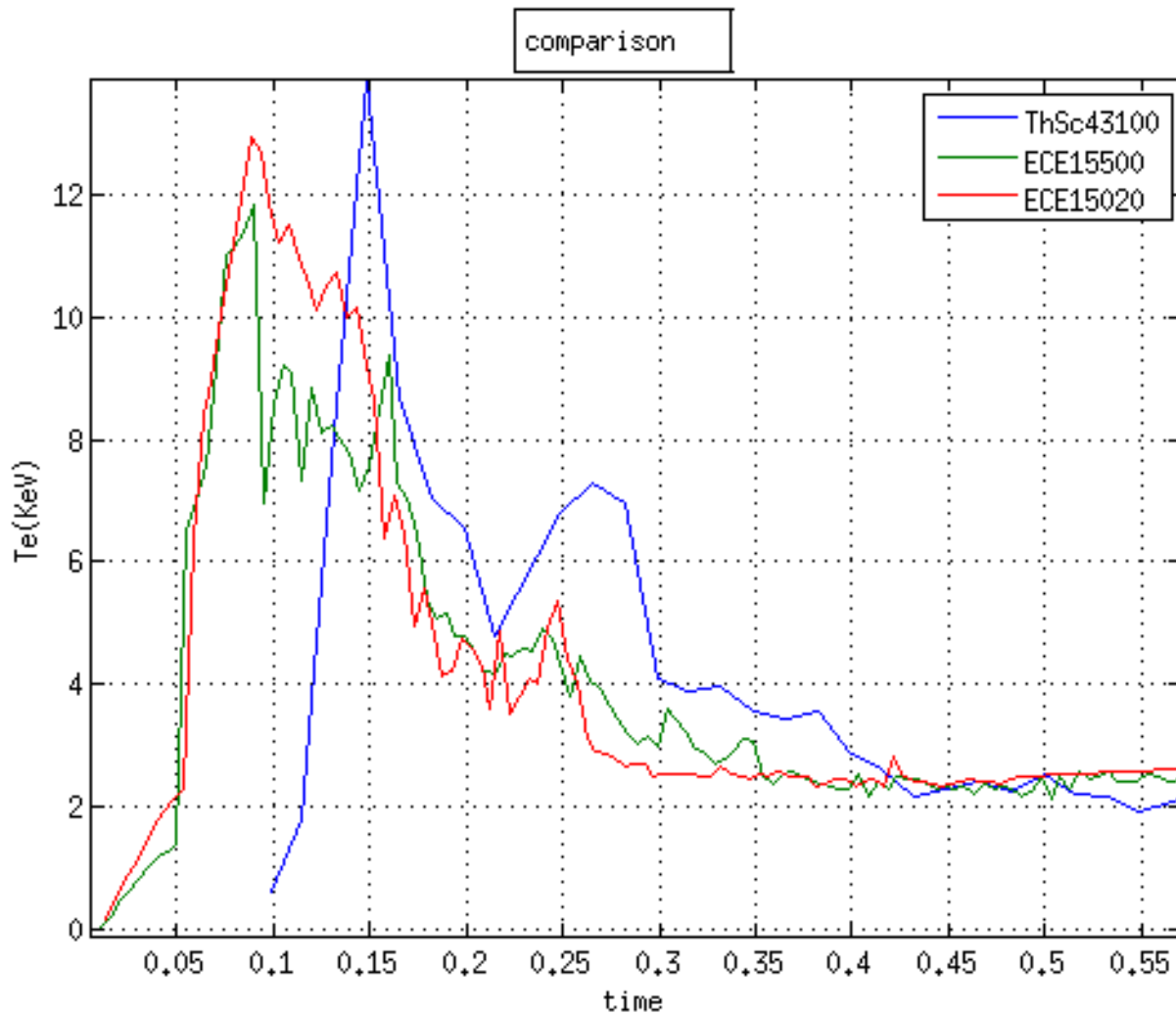
METIS



Pulse Plan

- 1-2. Repeat pulse #43100 with **plasma position control**; check MHD .
- 3-5. optimize for **number** of pulses at high Te (get the number of pulses at high Te > 1) and compare the measurement of Te made by TS with ECE Michelson.
- 5-6. If ok , try changing the ramp derivative to get higher Te
- 7-8. optimize for number of pulses at high Te.





Te = 14keV obtained in pulse 43100 higher than the max Te obtained in FTU

