

XP 709 - SOL width scaling

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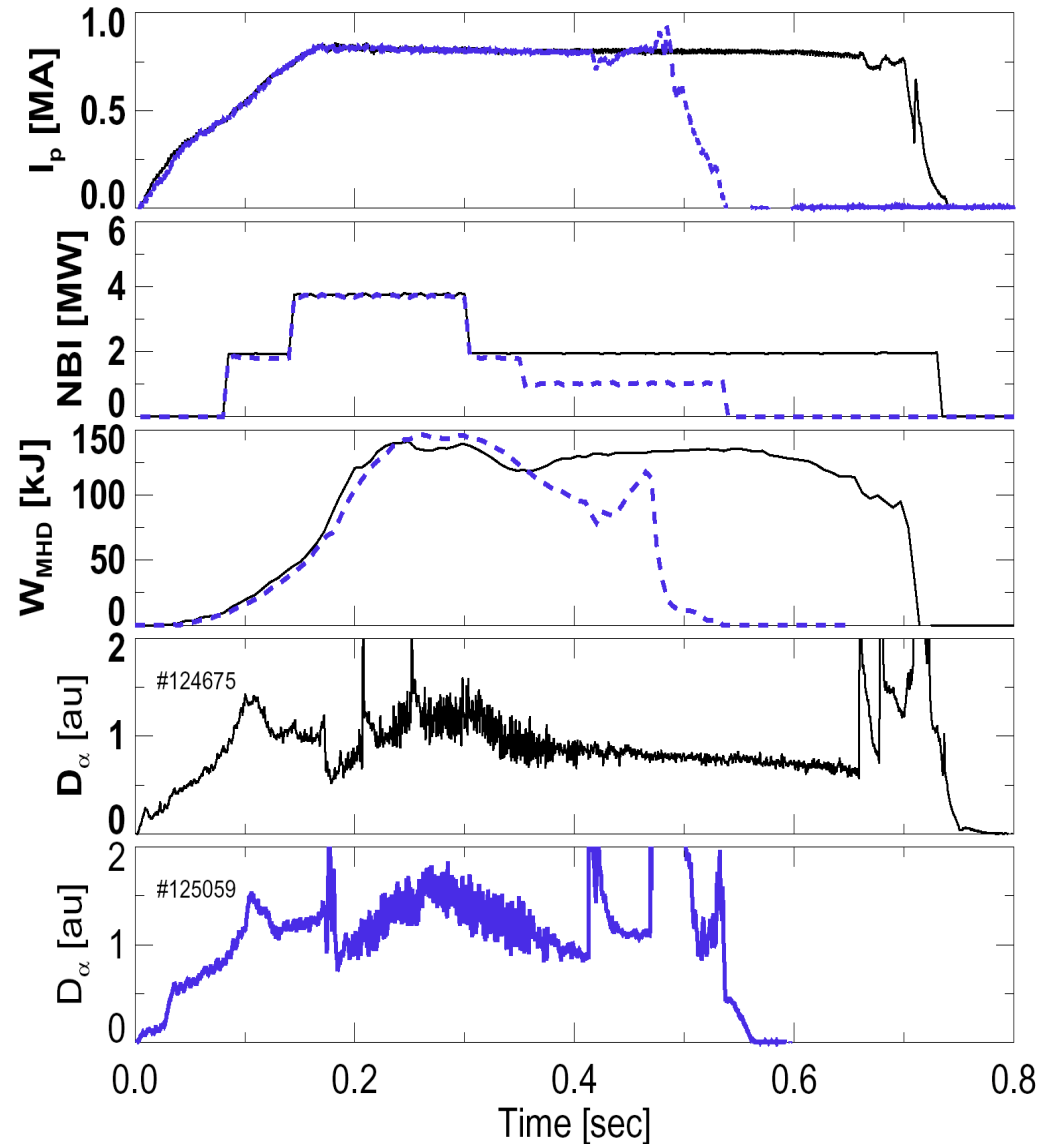
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NSTX Monday Physics Meeting
June 18, 2007

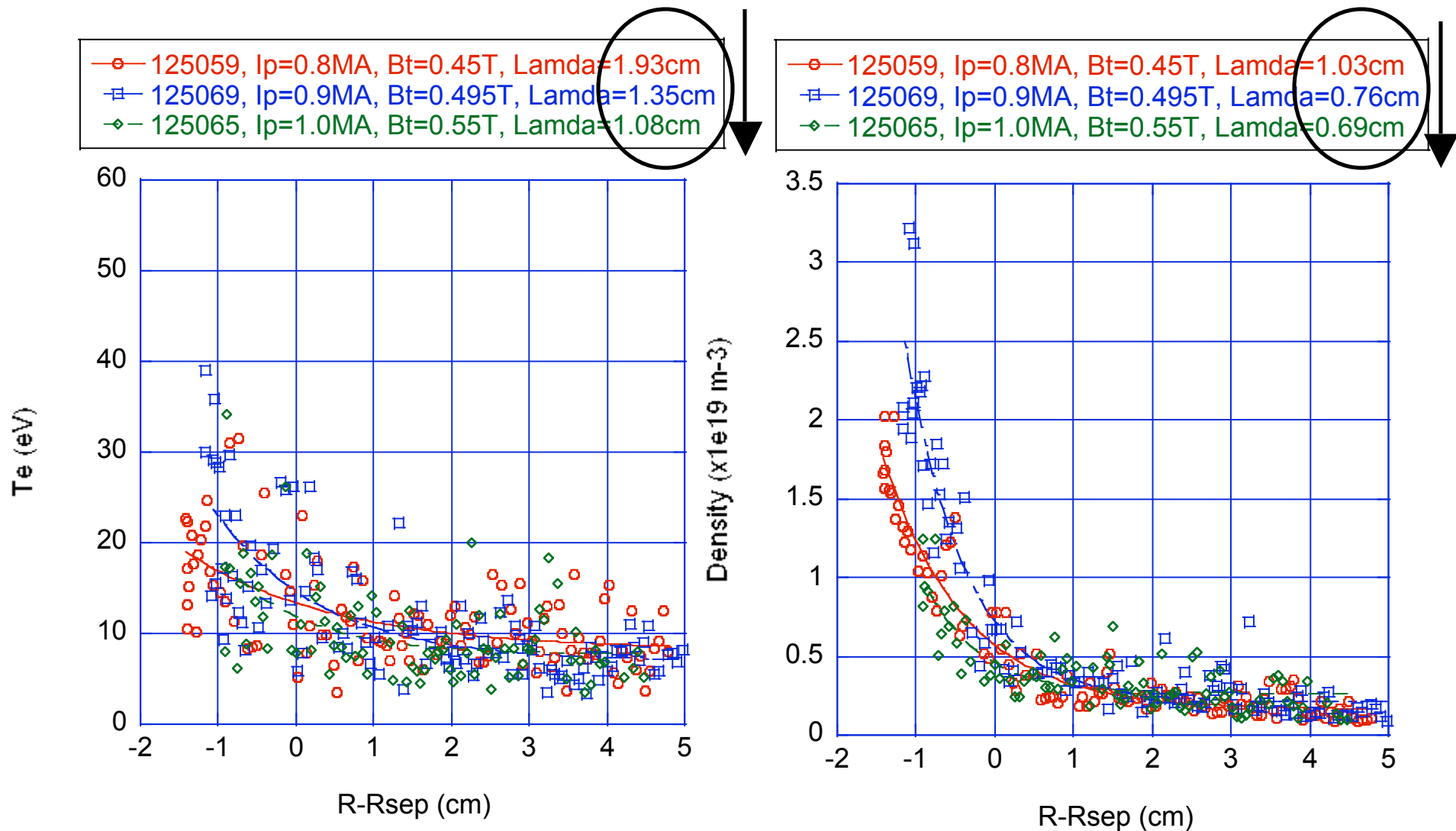
XP 709 nearly completed, and part of XP 747 finished

- Reproduce baseline PF2L
LSN #124675: $I_p=0.8$ MA,
 $B_t=0.44$ T, at $P_{NBI}=1$ MW (5
shots)
- Plunge the RP at 3 different
densities: 2.5, 3.2 and 4e13
(part of XP 747) **Yes**
- Perform I_p scan at
approximately fixed q_{95} (at
fixed $I_p/B_t=1.818$ and at
 $P_{NBI}=1$ MW (12 shots)

- I. (1.0 MA, 0.55 T) **Yes**
II. (0.7 MA, 0.385 T) **No**
III. (0.9 MA, 0.495 T) **Yes**



λ_{Te} and λ_{ne} decreases with increasing I_p



- ✓ H-mode plasmas with fixed $q_{95} \rightarrow I_p/B_t \sim 1.818$
- ✓ N_{ebar} and P_{NBI} all similar $\rightarrow \sim 4 \times 10^{19} \text{ m}^{-3}$ & 1MW
- ✓ I_p and B_t scan $\rightarrow$ Reliable T_e and n_e profiles obtained