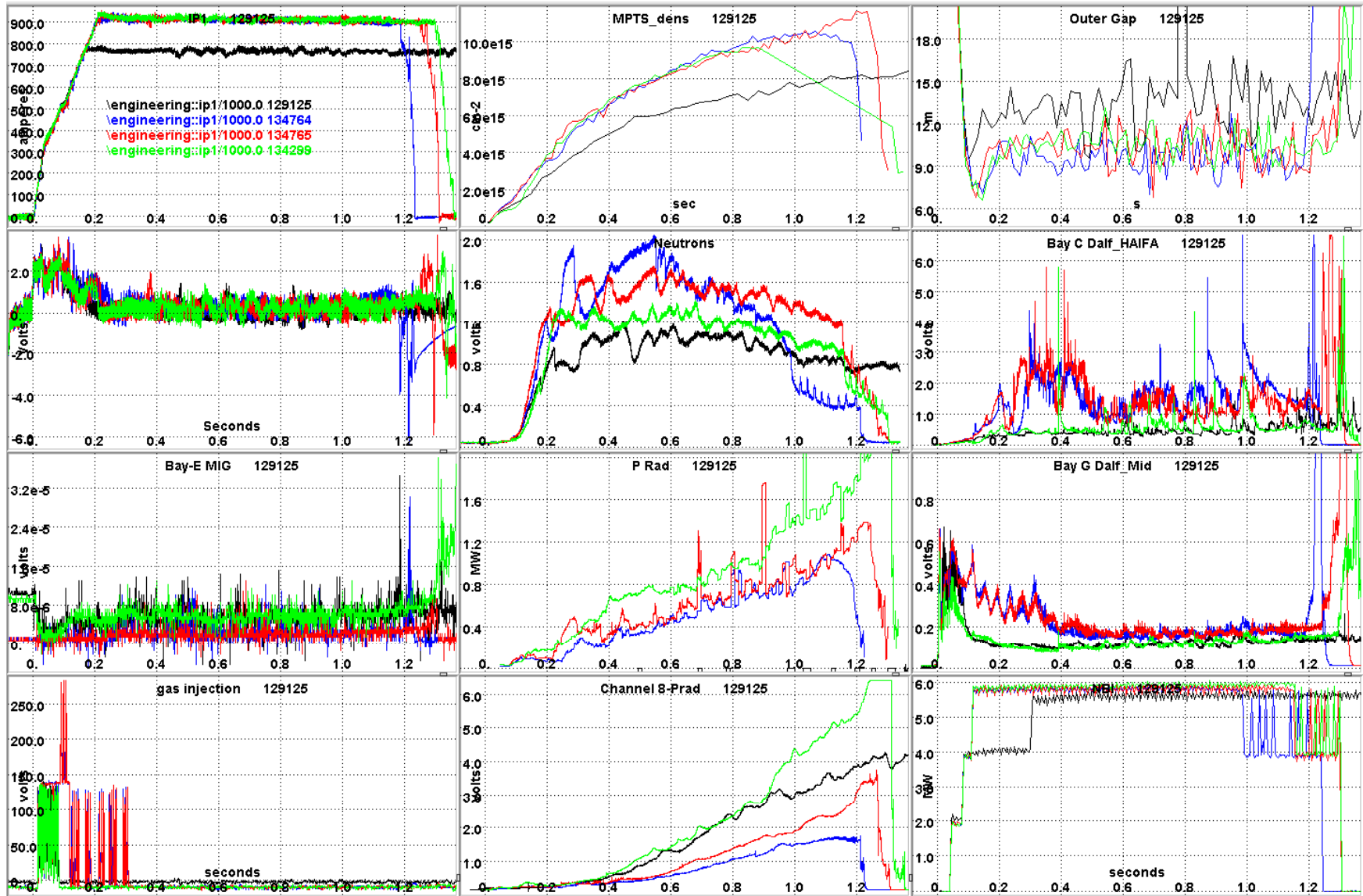


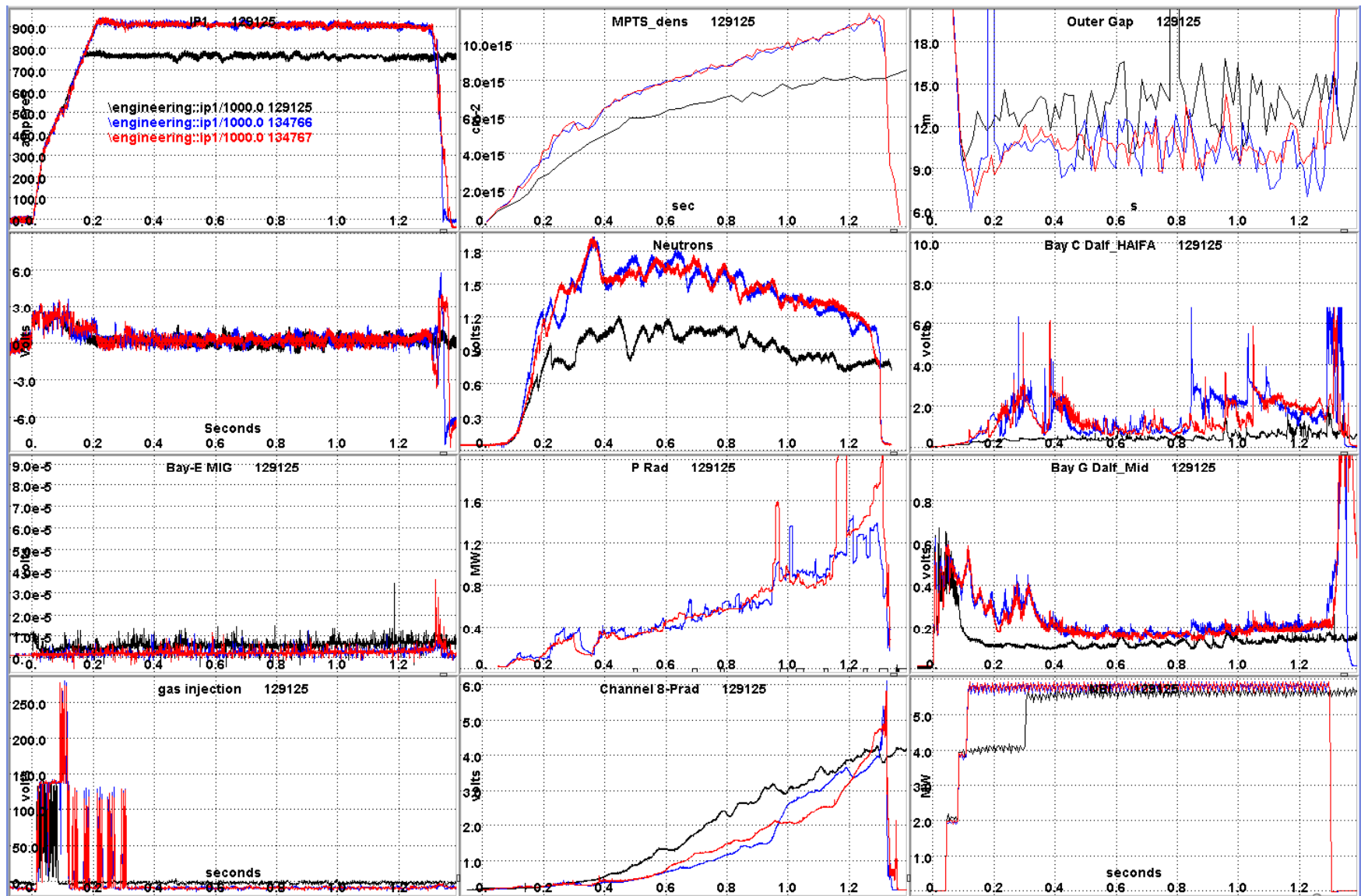
# Steady State Discharges With LFS Fueling

R Raman, D. Mueller, et al.  
15-18 March 2011  
NSTX Research Forum  
Boundary Physics Group

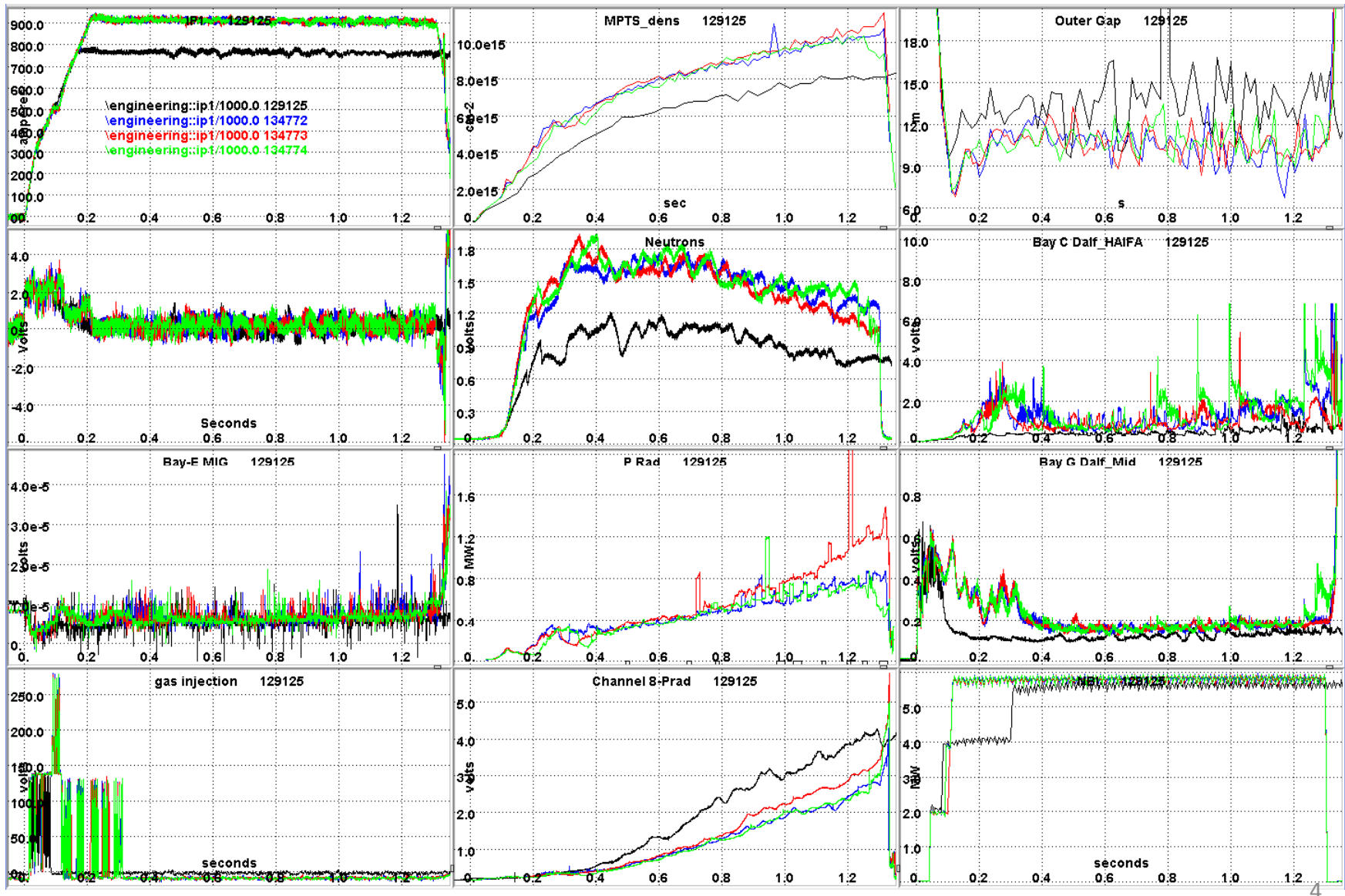
134299: standard Fiducial. 129125 – Good ELMy shot provided by Stefan. 134764 and 134765 - No LITER or Li dropper but run after recent shots with LITER (6-7 min HeGDC, No CS, LFS at 5000 Torr)



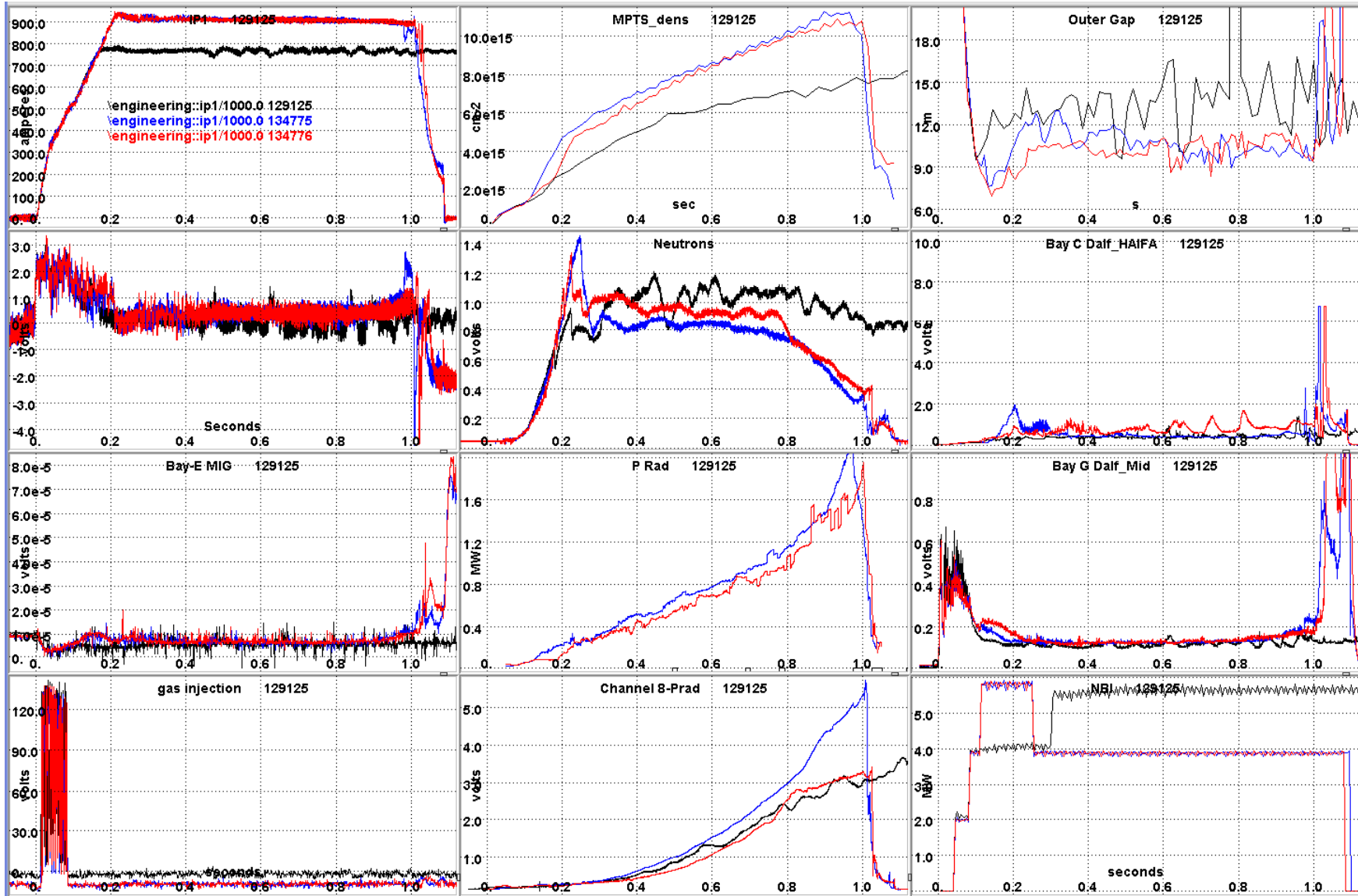
129125 – Good ELMy shot provided by Stefan. 134766 and 134767 - No LITER but run after recent shots with LITER (6-7 min HeGDC, No CS, LFS at 5000 Torr. 134767 with Li dropper, 134766 – questionable Li-dropper)



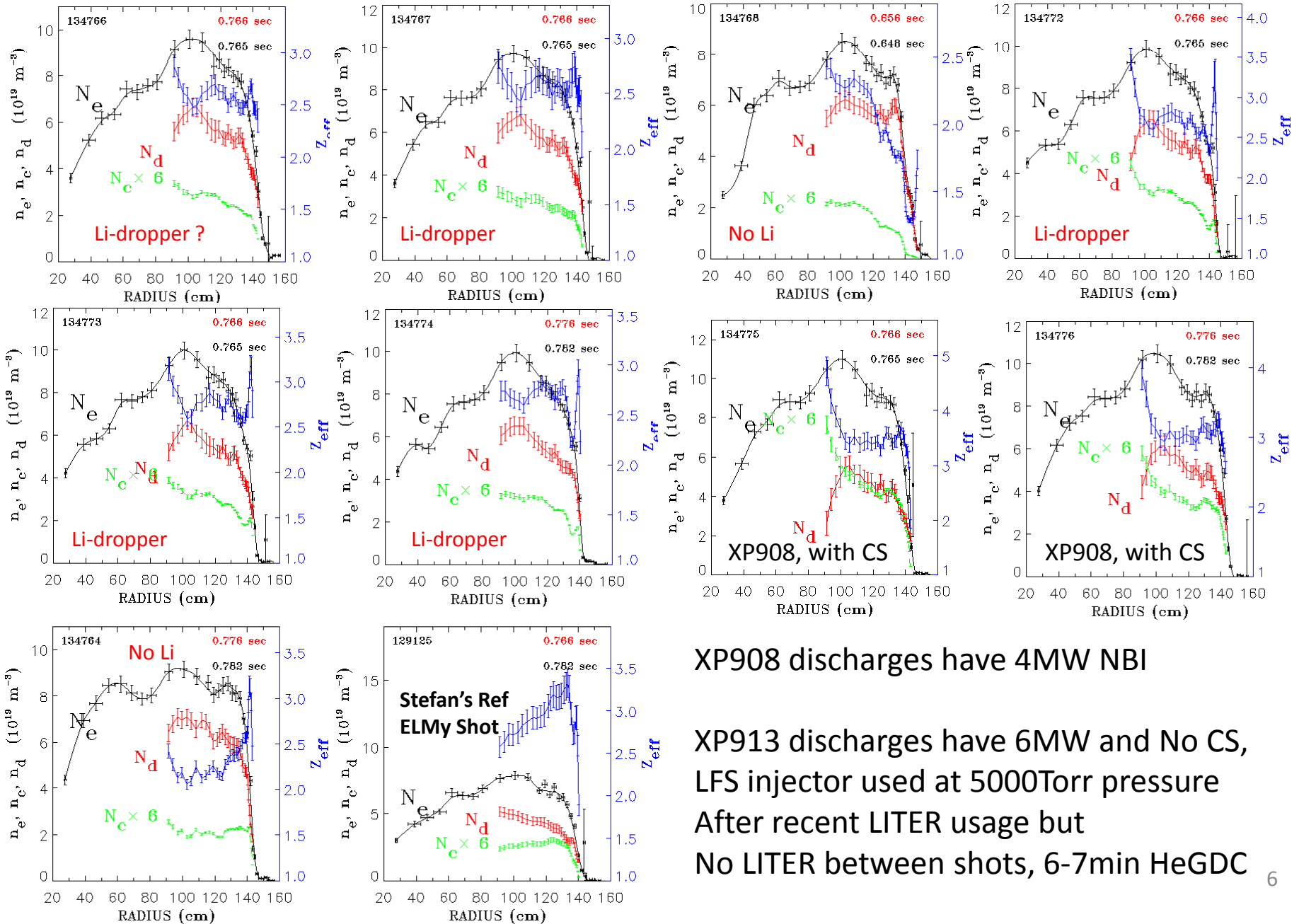
129125 – Good ELMy shot provided by Stefan. 134772, 134773, 134774 - No LITER but run after recent shots with LITER (6-7 min HeGDC, No CS, LFS at 5000 Torr, with Li dropper)



129125 – Good ELMy shot provided by Stefan. 134775, 134776 - Back to operation with CS gas and LITER. Prad becomes same as Stefan's shot.



# Shots without CS gas or LITER (134764-774) & with CS & LITER (134775 & 6)



XP908 discharges have 4MW NBI

XP913 discharges have 6MW and No CS,  
LFS injector used at 5000Torr pressure  
After recent LITER usage but  
No LITER between shots, 6-7min HeGDC

# Possible strategy to produce steady-state discharge (0.5-1 day)

- Preferably run this after a recent boronization
- Start with a shot like 134774
- Use SGI or LFS (no CS or with 500Torr on CS) and adjust gas pulses to reduce fueling
- Use 7-10min HeGDC, with about 25-50mg Li/shot
  - In a sequence of shots use Li dropper with/without LITER
- If necessary, during the later part of the discharge introduce n=3 pulses to increase ELMs