

# Isolating particle sources and sinks in RMP H-modes with core pellet fueling (2008-03-06: June 5, 2008)

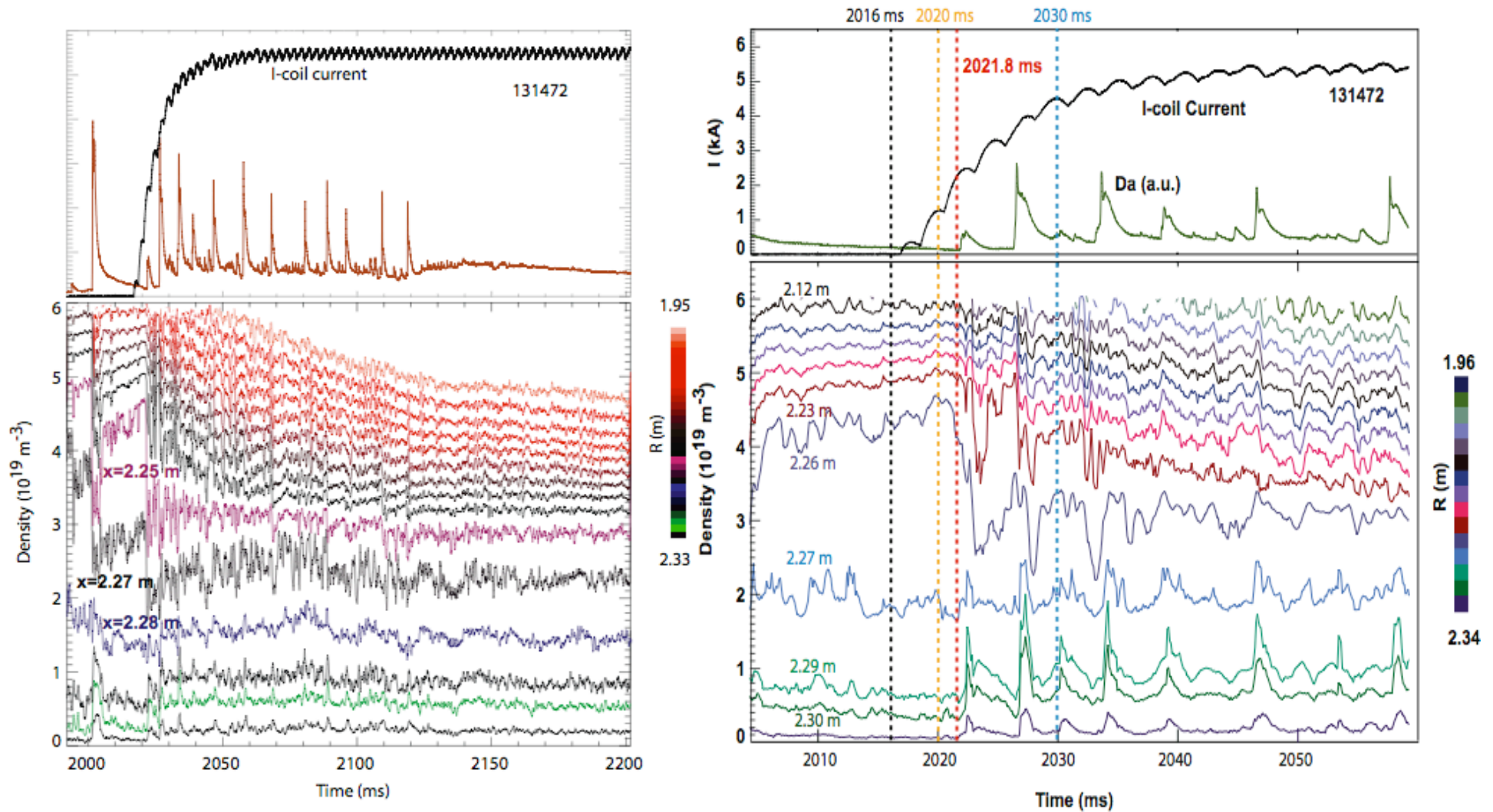
- **Goal:**

- > Establish quantitative connection between core fueling (pellets), particle confinement, wall recycling and particle exhaust (cryopumps and/or walls)

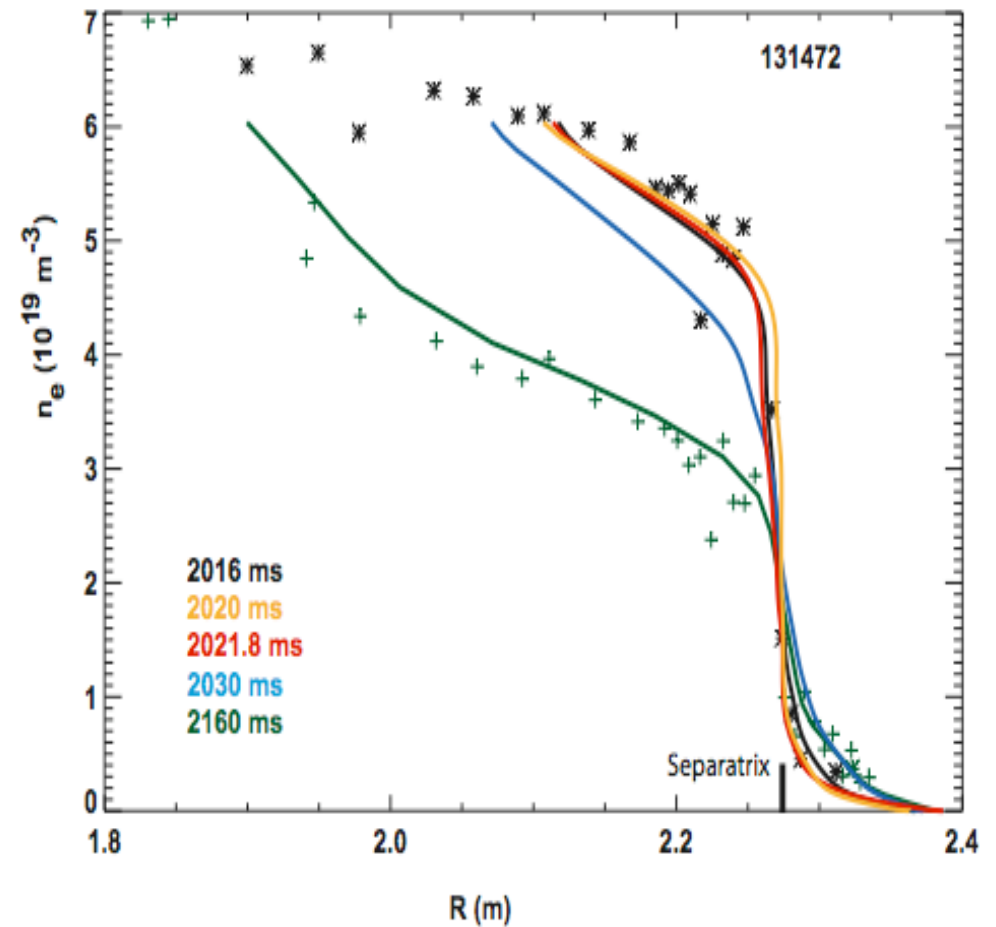
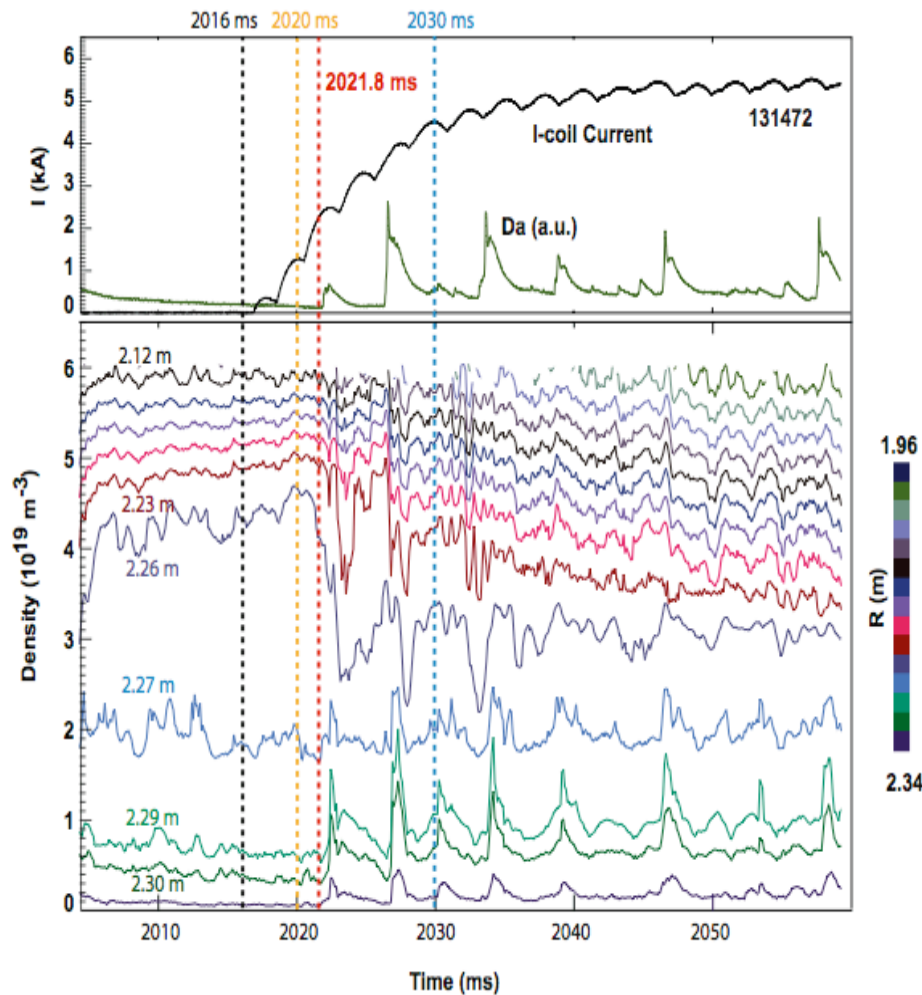
- **Draft Plan:**

- > Constant  $P_{inj}$ , pellet and I-coil parameters during ELM suppressed phase
  - Move OSP away from pump (4 discharges)
  - Vary I-coil current (4 discharges)
  - Vary  $I_p/B_T$  (constant  $q_{95}$ ),  $\beta_N$  scan (4 discharges)
- > Increase upper gap and triangularity to reduce coupling to upper pump and recycling surfaces (2 discharges)
- > Vary pellet velocity: deposition profile (4 discharges)
  - LFS compared to HSF injection
- > 3 point  $P_{inj}$  scan using one of the configurations from above (4 discharges)
- > Acquire high resolution CER data during I-coil turn-on (4 discharges)

# Fast I-coil pump-out (part I)

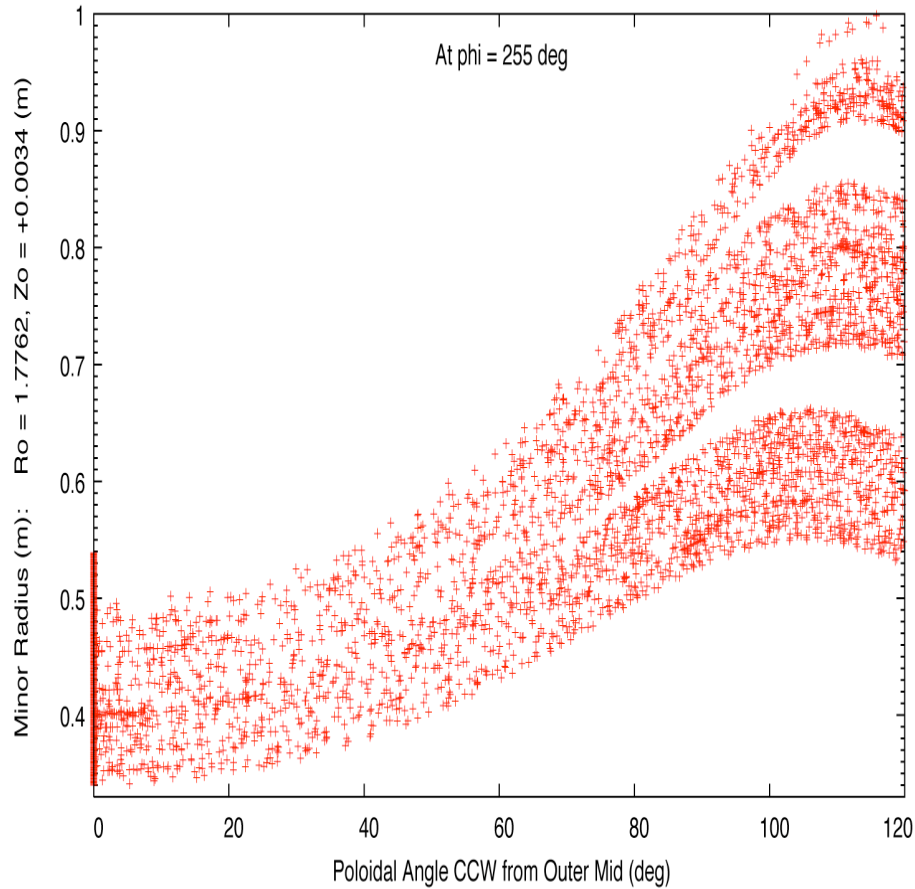


# Fast I-coil pump-out (part II)



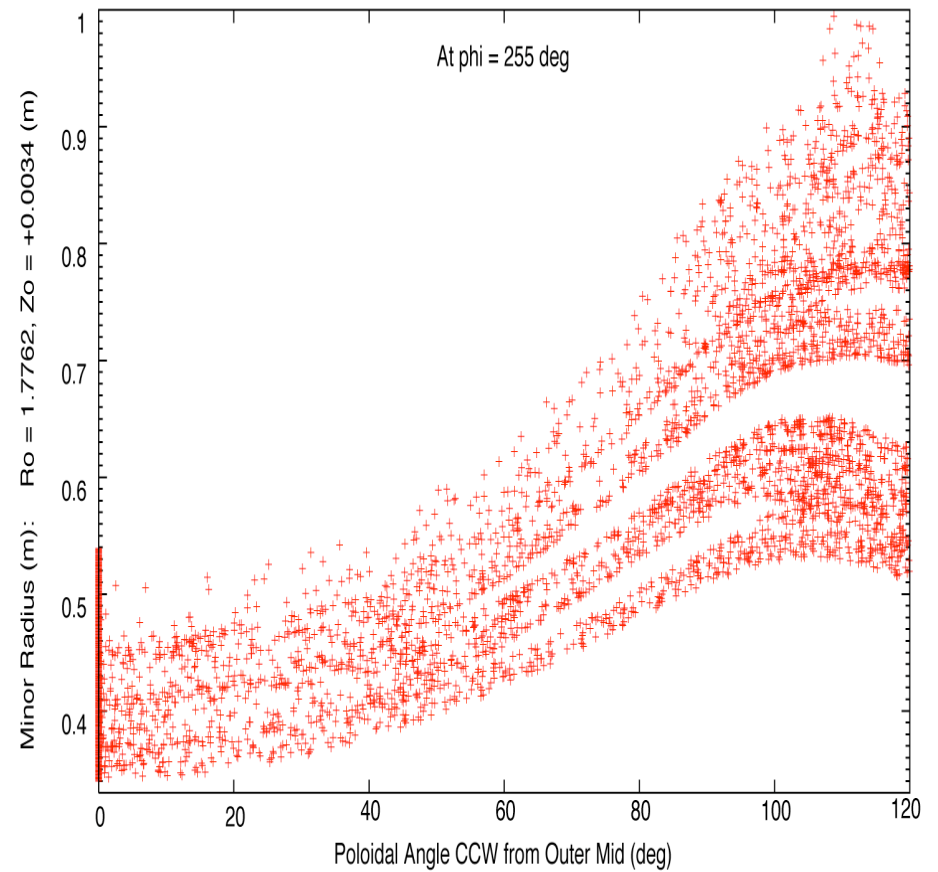
# Fast pump-out modeling

g131472.02016, no I-coil reference



T. Evans 2008 Mar 12 11:21

g131472.02160, upper and lower I-coil on @ 5400 A



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