Study of Transport with Reversed Shear in NSTX

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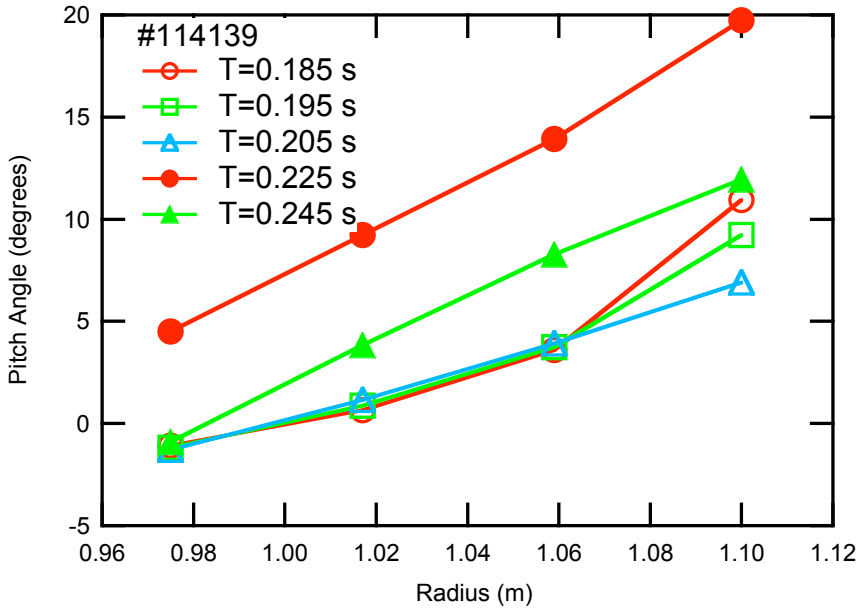
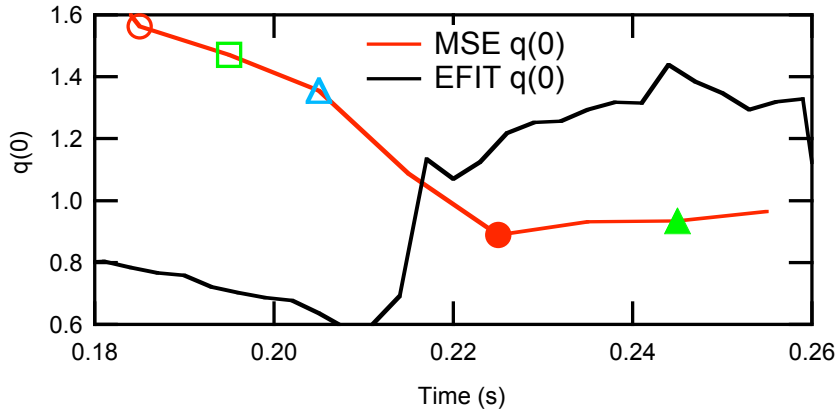
MSE-CIF Diagnostic is Operational





- Have data with 8 channels this run (only 4 at a time due to limited number of detectors).
- Plan to begin with 8 channels and increase to 12-14 during next run.
- Plan to have capability to reconstruct q-profile between shots.

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Proposed XP for Reversed Shear

1. Development of a robust high q(0), reversed shear startup using MSE-CIF for guidance.
   - Need high Te early in discharge without MHD. Use early NBI, H-mode, fast current ramp...
   - Useful for other XP's requiring high q(0) or reversed shear scenario.
2. Investigate thermal and particle transport of ions and electrons.
   - Macro and micro stability in RS region.
   - Power threshold, shear dependence,...