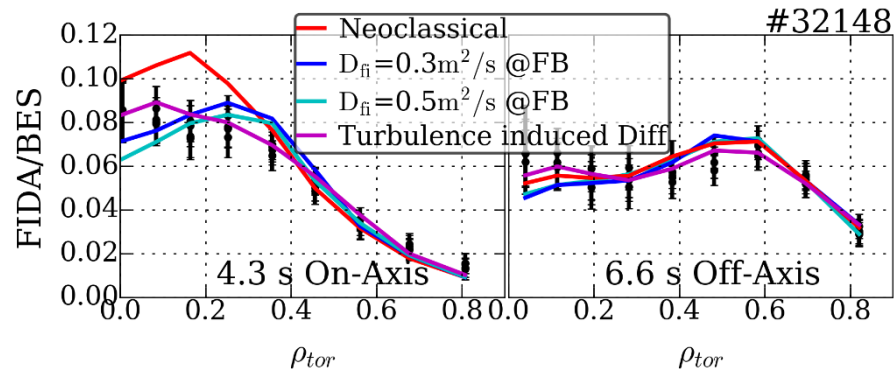
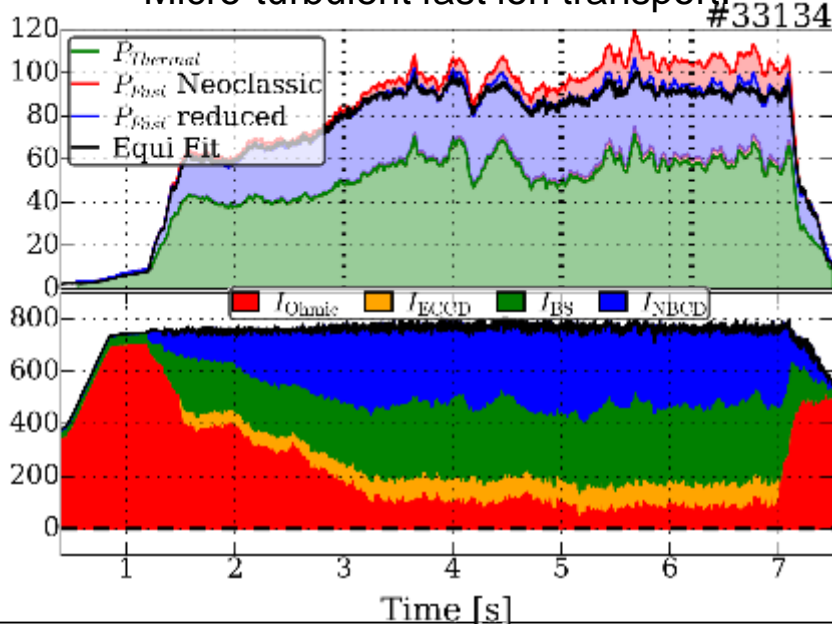


- Deviations from neoclassical predictions of the radial fast ion distribution in NB driven discharges are found.
- Two independent hypotheses are able to explain the deviations.
 - Fast ion redistribution by fishbones.
 - Micro-turbulent fast ion transport



- Almost fully non-inductive current drive was achieved.
- Equilibrium based pressure comparisons indicates an overestimation of the predicted fast ion content.
- With the corrected fast ion distribution the currently available quantitative models for non-inductive current drive lead to a prediction of the current distribution consistent with all diagnostics.