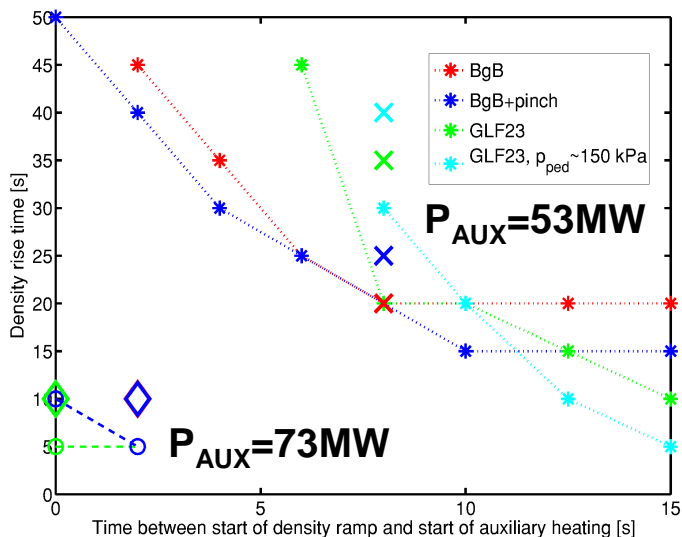


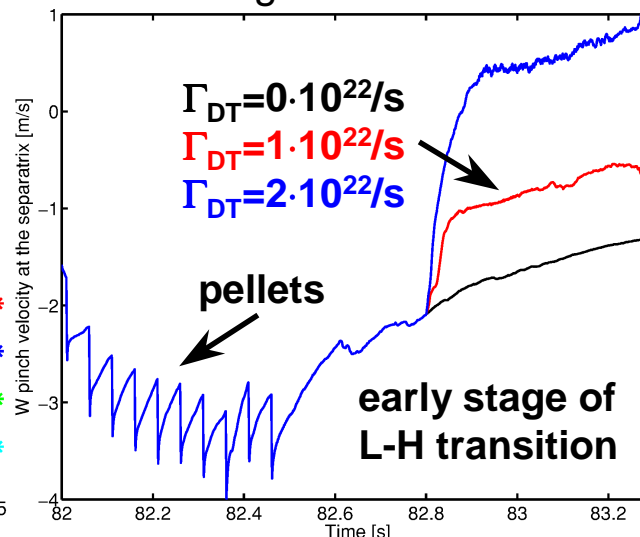
Modelling of Transitions Between L- and H-Mode Including W Behaviour in ITER Scenarios

- JINTRAC core and core+SOL modelling to study limitations and means for optimisation in transition from / to ITER H-mode plasmas: 15MA/5.3T DT, 7.5 MA/2.65T He and DT.
- Careful n_e control by pellets / gas puff required to assure access to high Q_{DT} minimising W contamination.
- H-mode in He predicted to be achievable at low $n_e \sim n_{NB,shine-through}$ with $P_{AUX} \geq \sim 40$ MW.
- Predicted duration of H-L transition at 15 MA/7.5 MA not critical for divertor and plasma position control, but loss of ELM control could cause W contamination and shorten transition time to ~ 1 s.

Limits (lines) and optimum (points) for density ramp configuration to achieve high Q_{DT} H-mode @ 15 MA / 5.3 T:



W core accumulation during transition phases dependent on fuelling conditions:



H-L transition @ 15 MA / 5.3 T:

