

Edge ion heat transport dynamics during edge localized mode cycles at ASDEX Upgrade



- Sub-ms ion temperature measurements enable study of ion heat transport during edge localized modes
- Before the ELM and during recovery phase $\chi_i \approx \chi_i^{\text{NEO}}$ at plasma edge, dynamics of T_i captured with edge χ_i^{NEO} , effects due to ELM modelled ad-hoc by increasing χ_i ($\times 10$)
- Comparison to electron profiles shows:
 - ∇T_i recovers on **similar timescales** as ∇n_e , saturation correlates with *onset of medium-frequency fluctuations*
 - ∇T_e takes **twice as long** to reach pre-ELM values, at saturation *high-frequency fluctuations set on*

