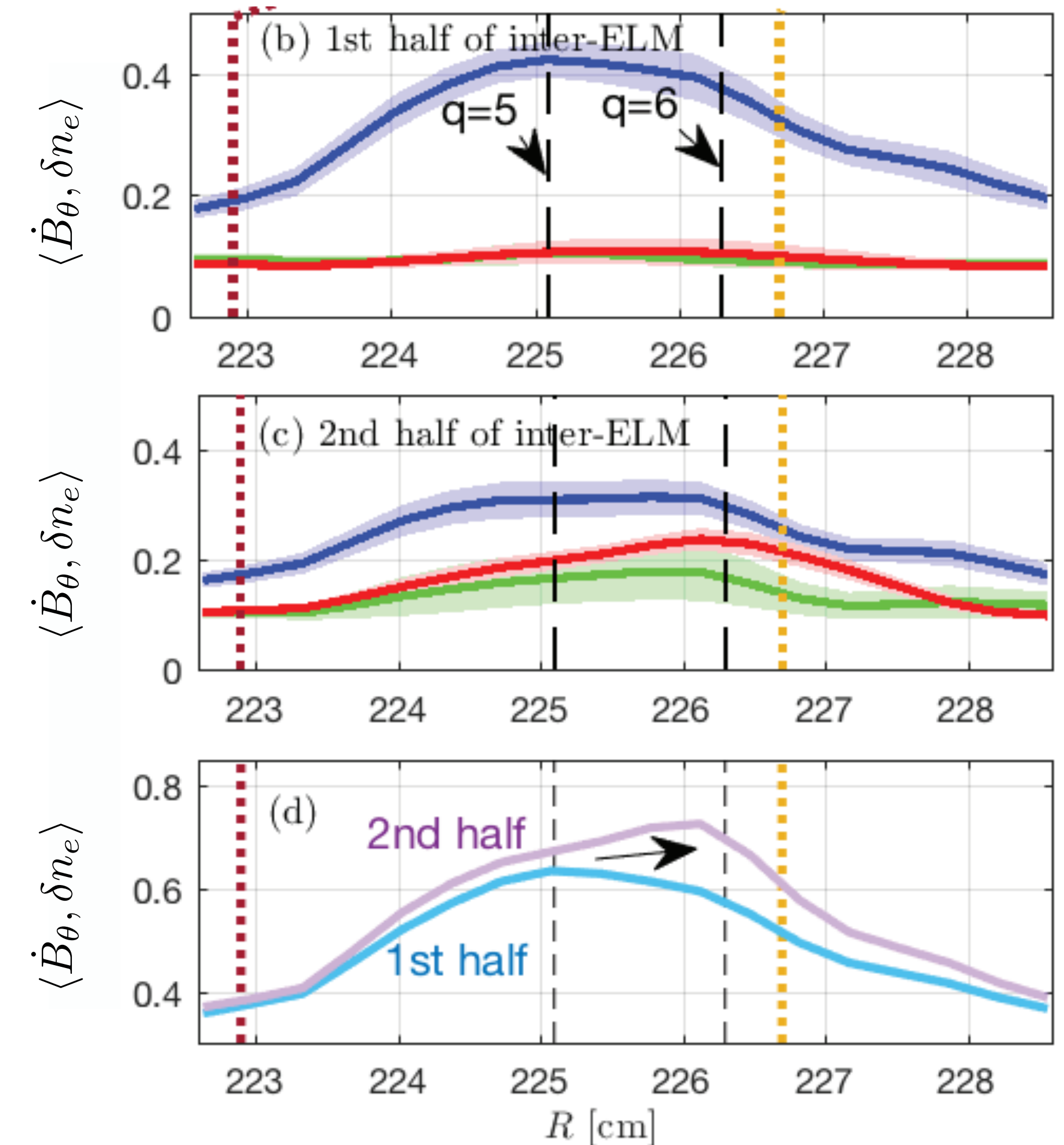


# ELMs onset triggered by mode coupling near rational surfaces in the pedestal - Ahmed Diallo et al. (PPPL)

EX/P6-2

- Understanding the physics mechanism of the ELM onset when the pedestal is pinned to marginally stable state has attracted some interest.
- Studies of the ELM onset during stationary long inter-ELM periods suggest that nonlinear effects (between the dominant pedestal modes) associated with radial shift towards the separatrix play a key role in triggering the ELM.
- Future work should be aimed at developing control tools to alter the nonlinear coupling of these modes in view of suppressing ELMs.



Intensification of the correlation between magnetic and density fluctuations near the separatrix prior to the ELM onset