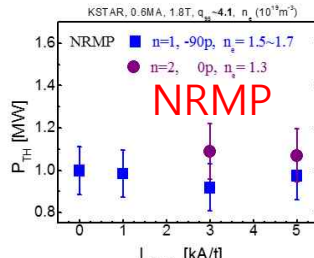
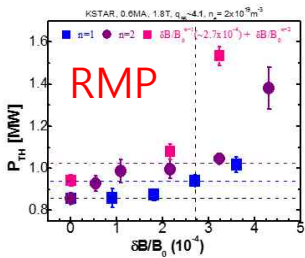
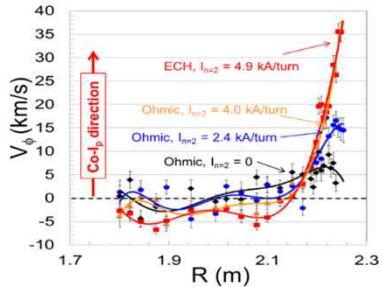


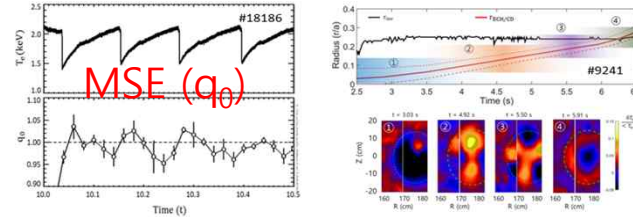
Achievement of record long ELM-crash free H-mode discharge (~34s)



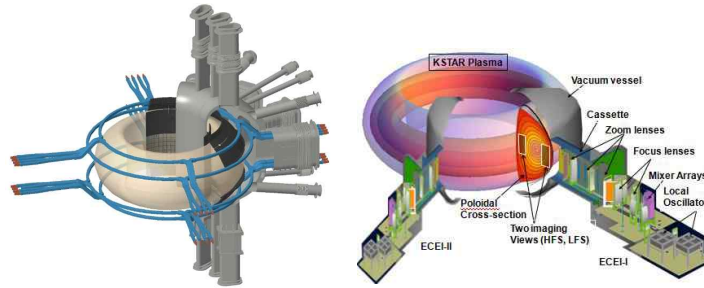
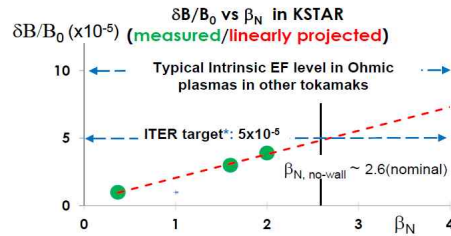
L/H transition threshold power dependence on non-axisymmetric fields (error fields). Resonant component (RMP) is important



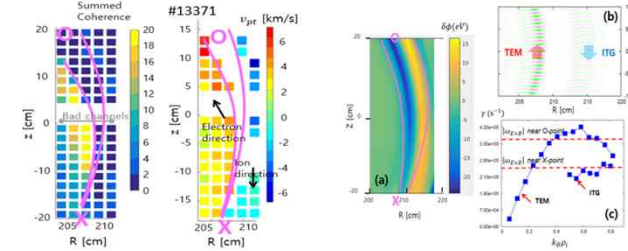
NTV physics: n=2 3D field demonstrates the intrinsic rotation in ohmic plasma and increased edge rotation with ECH power. ITER can use this scheme to increase the rotation speed  $\Delta$



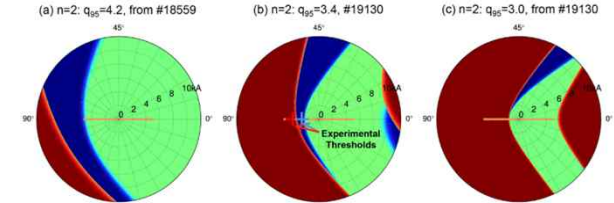
Validation of the "full reconnection model" ( $q_0 > 1$  right after the sawtooth crash) using MSE measurement and double tearing mode experiment



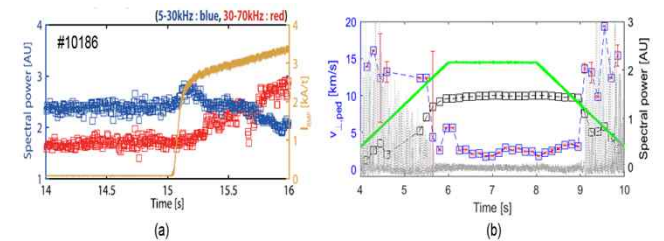
Unique features of KSTAR (nearly perfect symmetry, intricate low n IVCC and advanced diagnostics) allowed expansion of the operation space and advancement of physics results



Self-consistent analysis of the measured asymmetric turbulence (CTEM and ITG) in the presence of 2/1 island with GK and XGC1 modeling



Following successful experiment based on a priori modeling for suppression of ELM-crash with n=1, narrow of ELM-crash suppression for n=1 is explained



Radially localized low frequency turbulence induced by RMPs non-linearly interacts with ELMs and takes the Energy of ELMs. Suppression occurs at a critical value of the turbulence amplitude and perpendicular flow Speed is close to "0" when ELM-crash is suppressed.