TH/P3-1 Full-f gyrokinetic simulation including kinetic electrons
Y. Idomura (JAEA), Y. Asahi (JAEA), N. Hayashi (QST), H. Urano (QST)

ECRH modulation tokamak experiments observe rotation changes without torque input
• Important for rotation control in ITER
• Fast profile changes in ~10ms
• Momentum transport is largely unknown

Electron heating modulation numerical experiments using full-f gyrokinetic code GT5D
• New kinetic electron model [Idomura, JCP16]
• Full-f ITG-TEM simulation over ~20msec
• Ion heating is switched to electron heating

Validation against ASDEX-U [McDermott, PPCF11]
• Transition from ITG ($\omega<0$) to TEM ($\omega>0$)
• Density peaking in TEM phase
• Rotation change in ctr-current direction
→ Toroidal angular momentum balance shows rotation drive induced by particle transport