EX/P4-33: Neoclassical Toroidal Viscosity (NTV) Offset rotation profile $V_{0}^{\text{NTV}}$ directly measured in KSTAR

- Intrinsic rotation profile $\delta B = 0$
- Utilize ECH plasmas
  - Avoid analysis difficulties related to NBI torque
- Co-$I_{p}$ direction of $V_{0}^{\text{NTV}}$
  - Consistent with dominance of electron channel
- Potential aid for ITER
  - ITER simulations: $\Omega_{\phi} \sim 2$ krad/s in outer region
  - Recent KSTAR experiment: $\Omega_{\phi} > 12$ krad/s in outer region (scaling?)
  - 15 times stronger rotation shear generated with applied 3D field

(S.A. Sabbagh, Y.S. Park, J. Kim, W. Ko, et al.)