

# Contributions from “A multi-machine analysis of non-axisymmetric and rotating halo currents” (EX/P6-46)

- ITPA-initiated study of halo current non-axisymmetry and rotation in C-Mod, DIII-D, AUG, and NSTX
- Some portion of halo current pulses in each machine exhibit non-axisymmetric and rotating behavior
- **a**, Halo current rotation frequency scales as  $f_h \sim 1/R_0 \rightarrow$  characteristic rotation velocity,  $v_h \sim 3\text{--}7$  km/s
- **b**, Halo current duration does not scale strongly with major radius
- Conclusion: The most dangerous rotation frequencies ( $f_h < 40$  Hz) are unlikely to complete the 2–3 full rotations required for the dynamic amplification of stresses in ITER

