ELECTROMAGNETIC GYROKINETIC ANALYSIS OF THE ISOTOPE EFFECT
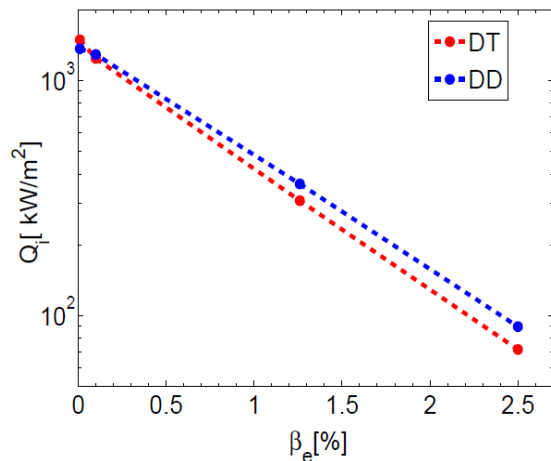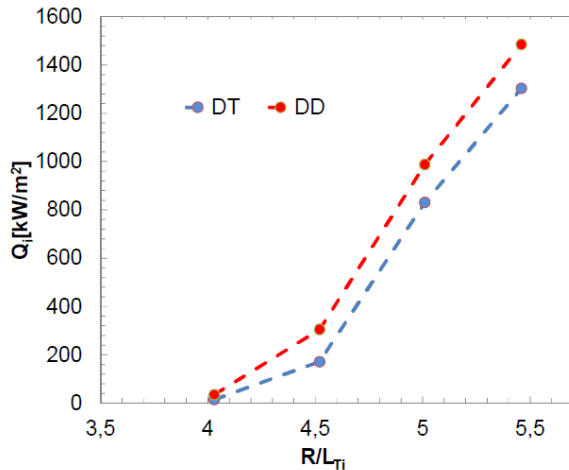
ITER GENE nonlinear simulation @ $\rho=0.33$. finite-β, collisions, realistic geometry, ExB and parallel flow shear (pfs) effects

- An isotope effect is found when including finite-β, ExB and pfs effects in non-linear DD vs DT simulations for ITER

- GyroBohm scaling obtained in electrostatic conditions without ExB and pfs

- No deviations for GB scaling obtained in linear scans→ non-linear process

- Non-linear coupling between zonal flows, mass and finite-β obtained

- Mesoscale nature of the isotope effect found in agreement with recent experiments

Jeronimo Garcia, TH/6-3, 26th Fusion Energy Conference (FEC 2016), Kyoto