

- Electromagnetic linear gyrokinetic modeling with PIC code NEMORB [Jolliet2007,Bottino2011] for realistic and simplified tokamak equilibria.
- GAM spectra (Fig. left) of ASDEX Upgrade inverted temperature profiles [Lauber2013] and analysis of energetic-particle driven GAM.
- Ion-temperature-gradient modes in CYCLONE equilibrium, for linear (Fig. center) and nonlinear [Bottino2011] electromagnetic simulations.
- Alfvén eigenmodes (Fig. right) investigated with NEMORB, EUTERPE [Kornilov2004,Mischenko2008] and XHMGC [Briguglio1995,Wang2011].
- Future modeling: selfconsistent gyrokinetic simulations of burning plasmas → energetic particles with global instabilities and turbulence.

