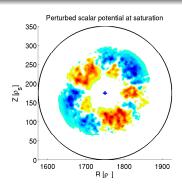
## Biancalani et al, "Gyrok. simulation of Alfvén modes and turbulence"



- GK PIC code ORB5 capable of investigating nonlinear Alfvén modes and energetic particles and turbulence
- lons/electrons treated gyrokinetically/drift-kinetically
- Global collisionless simulations of a broad radial domain



- Zonal structures (GAMs and ZFs) excited by Alfvén modes modulate heat transport
- Next step 1: EP transport due to Alfvén modes in turbulent plasmas
- Next step 2: Predictions for present/future tokamak experiments