

Nonlinear MHD simulations of Quiescent H-mode pedestal in DIII-D and implications for ITER

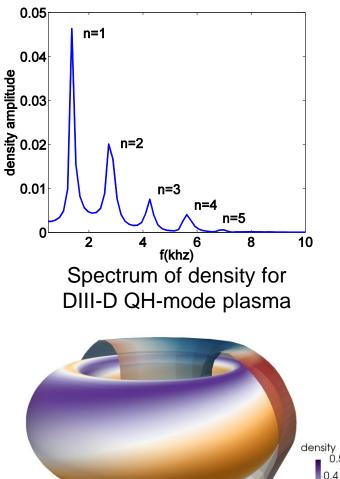
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- Non-linear MHD simulations of DIII-D QH-mode plasmas found that low n kink-peeling modes (KPM) are unstable and saturate to EHO phase.
- The characteristic density fluctuations and spectrum at the edge are consistent with the EHO in DIII-D experiments.
- ELMs-like behavior found with condition of lower edge current and higher pedestal pressure.
- application of RMP n=3 mode effectively stabilises the other toroidal harmonics in QHmode.
- Nonlinear simulation results of ITER Q=10 plasma for n=0-1 modes show a saturated kink/peeling mode.



ITER plasma with n=0,1 modes