TH/P4-10: Global Gyrokinetic Simulation of Energetic Particle-Driven Instabilities in 3D Systems

3D Systems - D. A. Spong,[1] I. Holod,[2] Y. Todo,[3] M. Osakabe[3]
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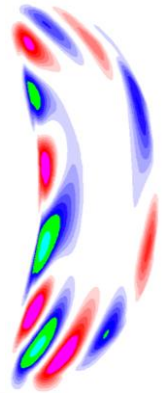
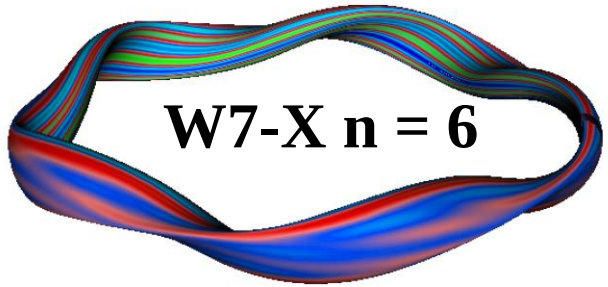
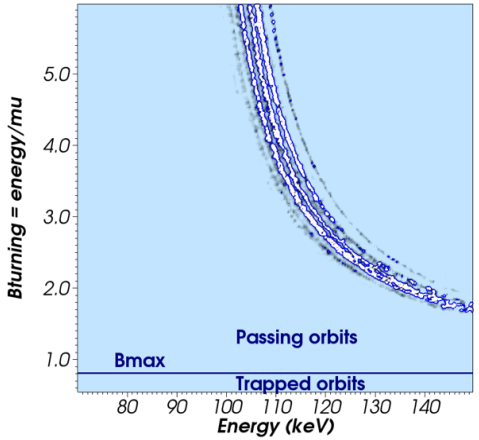
- GTC global gyrokinetic PIC model adapted to 3D systems
- Applications to energetic particle instabilities and core transport
- LHD: n = 1 and n = 2; W7-X: n = 6 TAE instabilities analyzed

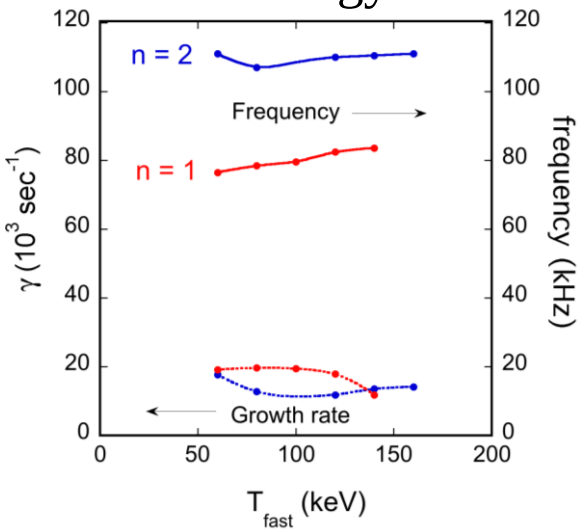




Phase space resonances



Stability vs. fast Ion energy



Alfvén gap structure