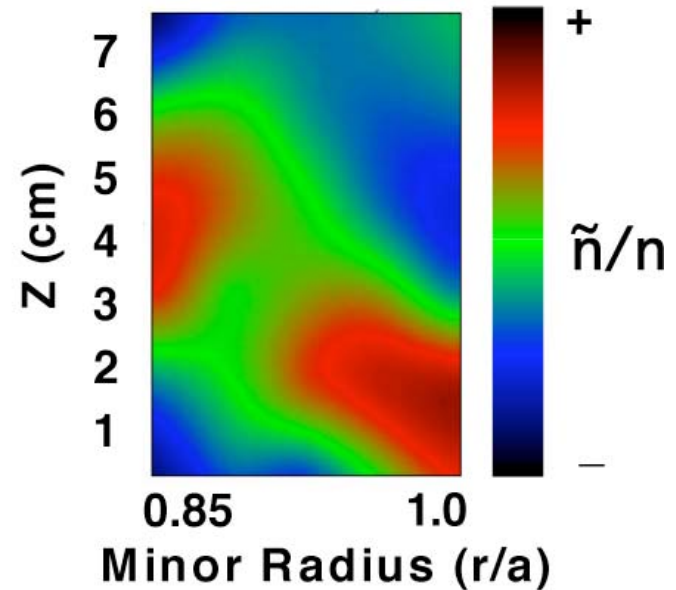
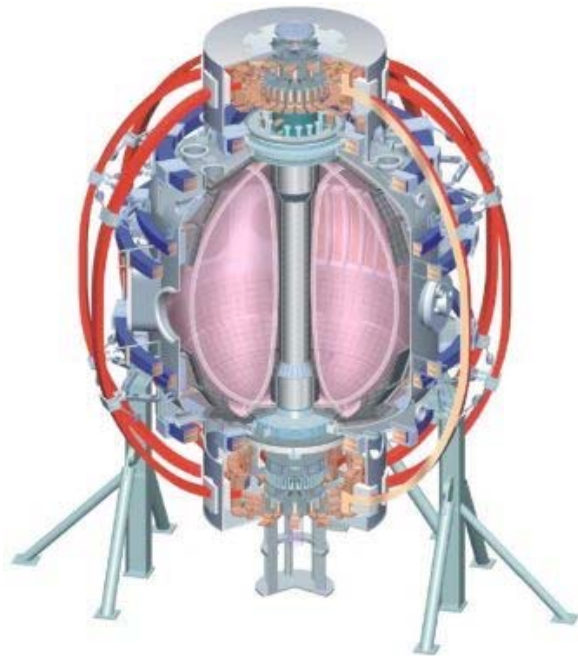


Investigation of low-frequency AE/EPM mode structures

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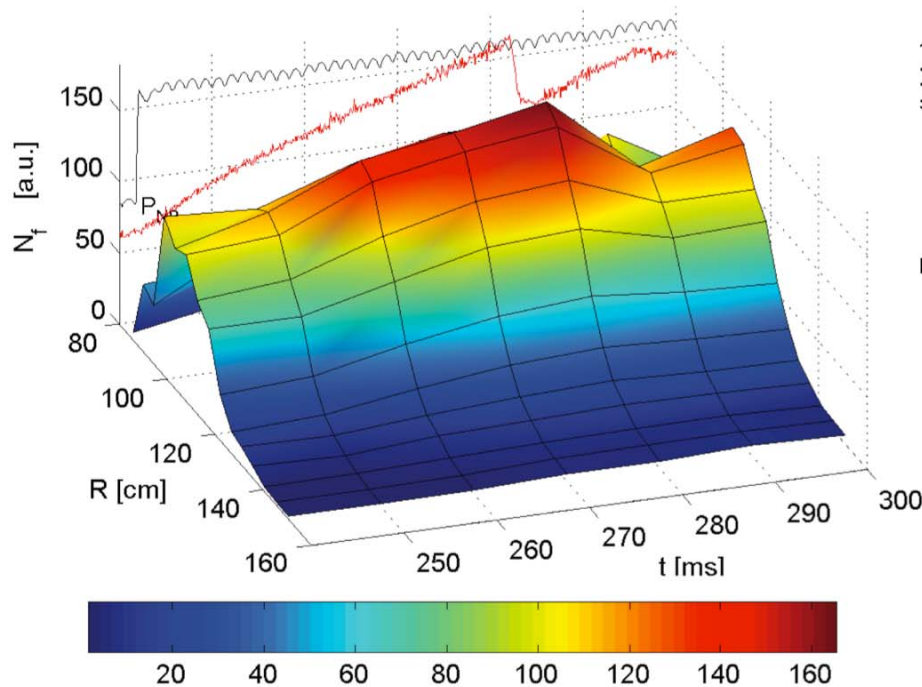


Investigation of low-frequency AE/EPM mode structures

- Goal: Identify and document low-frequency AE/EPM mode structures using the BES diagnostic
- Motivation: Fast ion losses from low-frequency AE/EPM can limit the performance of burning plasmas
- Method
 - Reproduce successful discharges from XPs 819, 905, and 916
 - Bt/Ip scan for gyroradius and V_A variation
 - Use n=3 nRMP breaking for mode coupling variation
- Runtime: 1 day

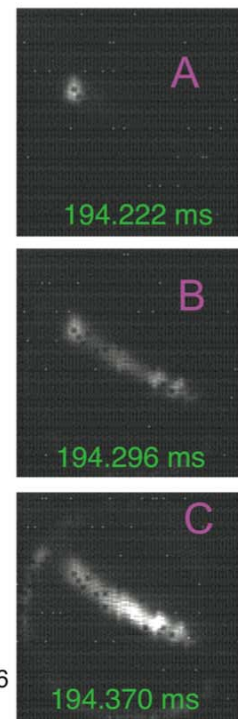
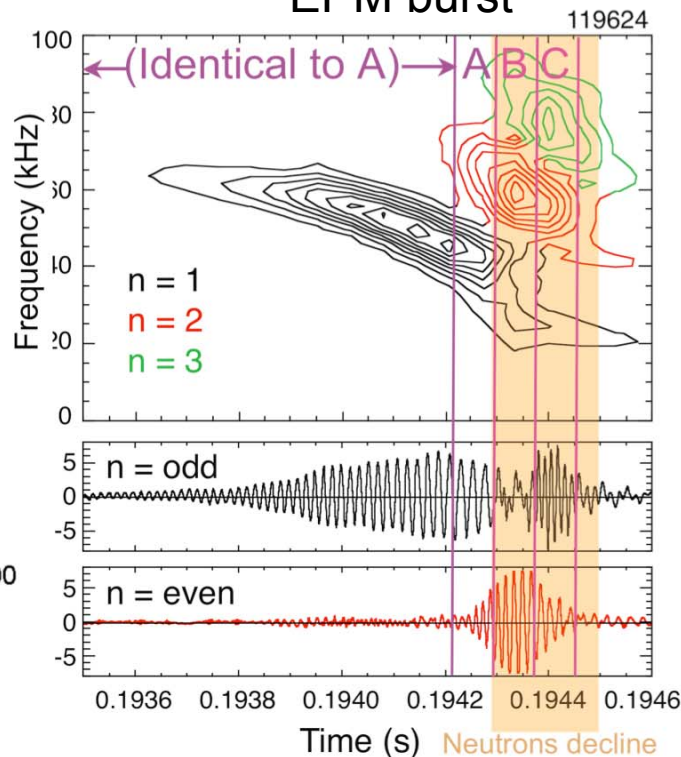
Investigation of low-frequency AE/EPM mode structures

Example: shot#128455, TAE avalanche at t=282ms



Podesta et al, NSTX RR 2009

EPM burst



Darrow et al, NSTX RR 2008