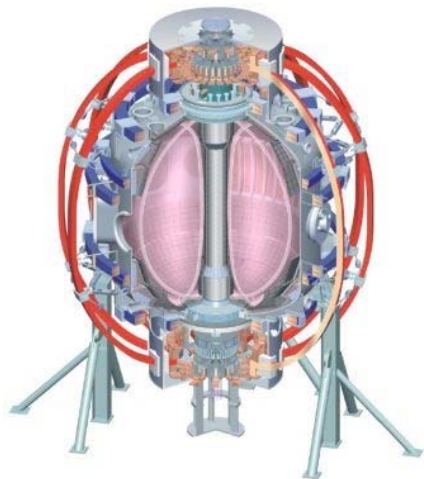


ETG turbulence isotropy in the k_θ - k_r plane

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ETG turbulence isotropy in the k_θ - k_r plane

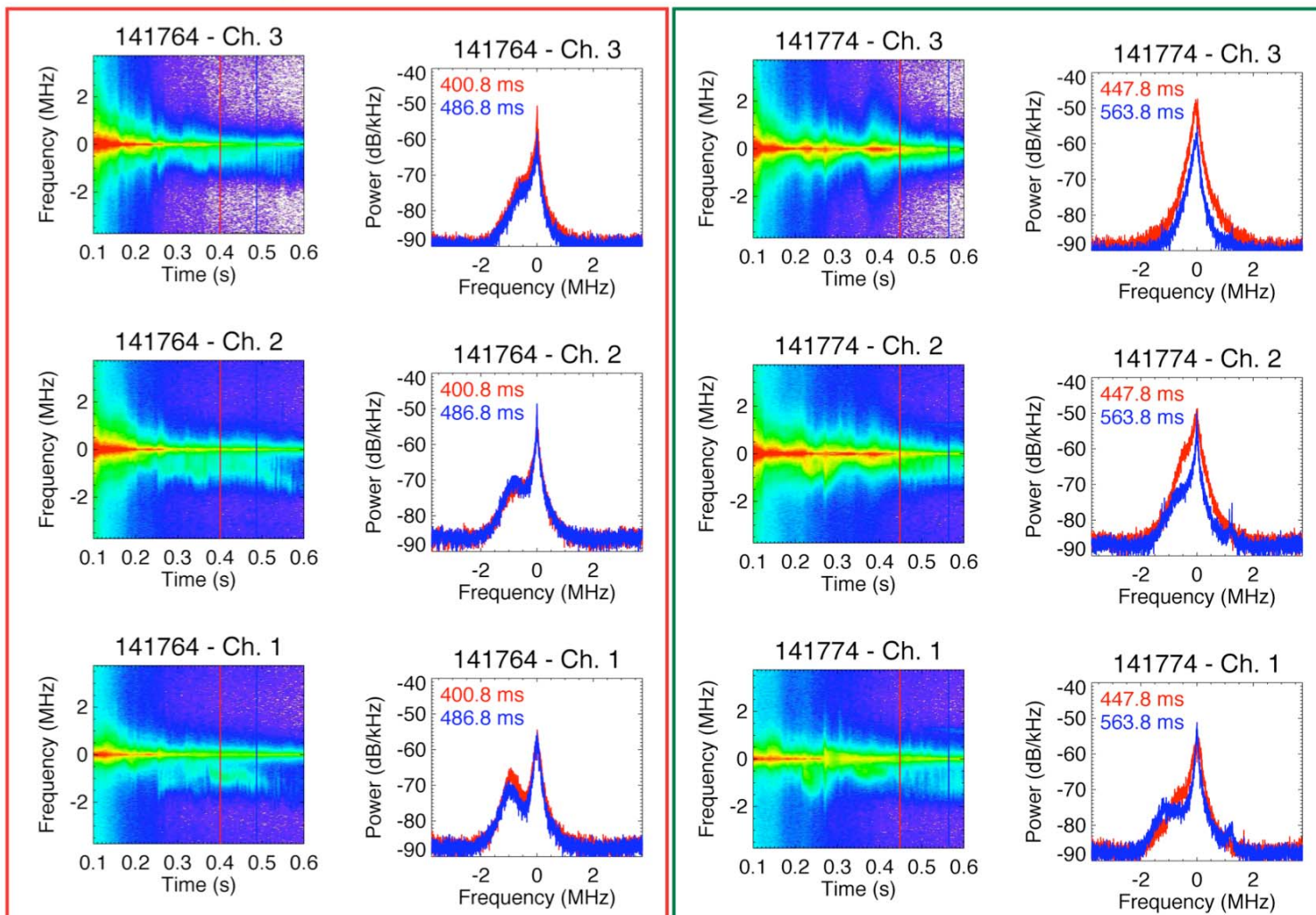
- Goal: Measure ETG turbulence at multiple locations in the k_θ - k_r plane to assess ETG isotropy or anisotropy
- Results from XP-1070 in 2010
 - ETG turbulence clearly evident in all high- k channels in high k_θ/k_r configuration
 - In low k_θ/k_r configuration, ETG turbulence obscured in low- k channel due to negligible Doppler shift
 - Lack of between-shot LITER degraded discharge reproducibility
- Plans for 2011
 - Redesign low k_θ/k_r configuration to enhance Doppler shift for ETG identification
 - Select Bt target with maximum $v_{E \times B}$ and Doppler shift (high Bt target (for I_p ramp-down) may have reduced $v_{E \times B}$ and Doppler shift)
 - LITER between shots for reproducibility
- 0.5 days
- FY12 JRT, R(11-1)

XP-1070 in 2010: small Doppler shift at small k_θ/k_r obscured ETG peak

large k_θ/k_r

small k_θ/k_r

low $|k|$
↑
↓
high $|k|$



(discharge parameters not matched)