

Core electron gyroscale fluctuations
in reverse shear discharges
(XP 620)

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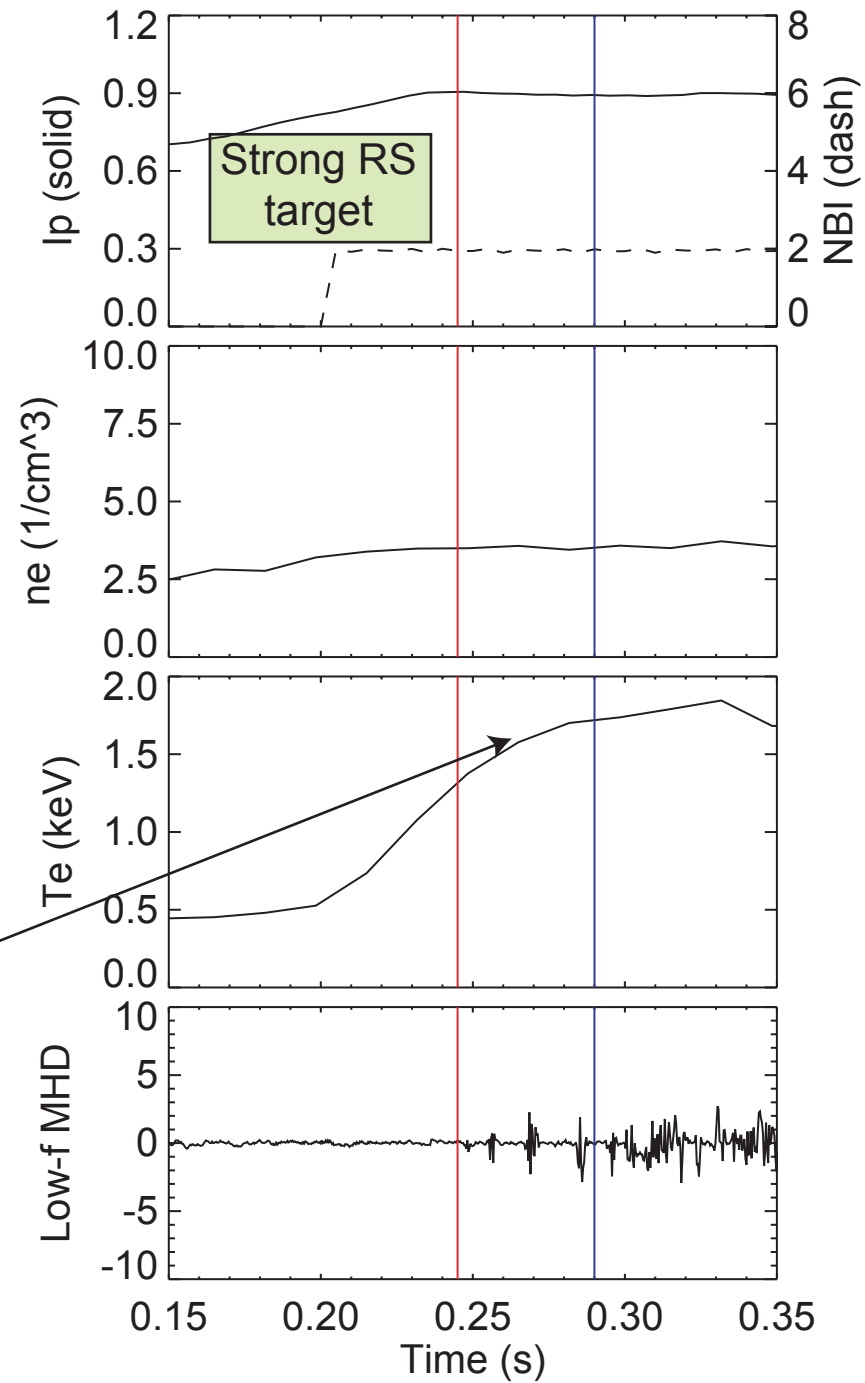
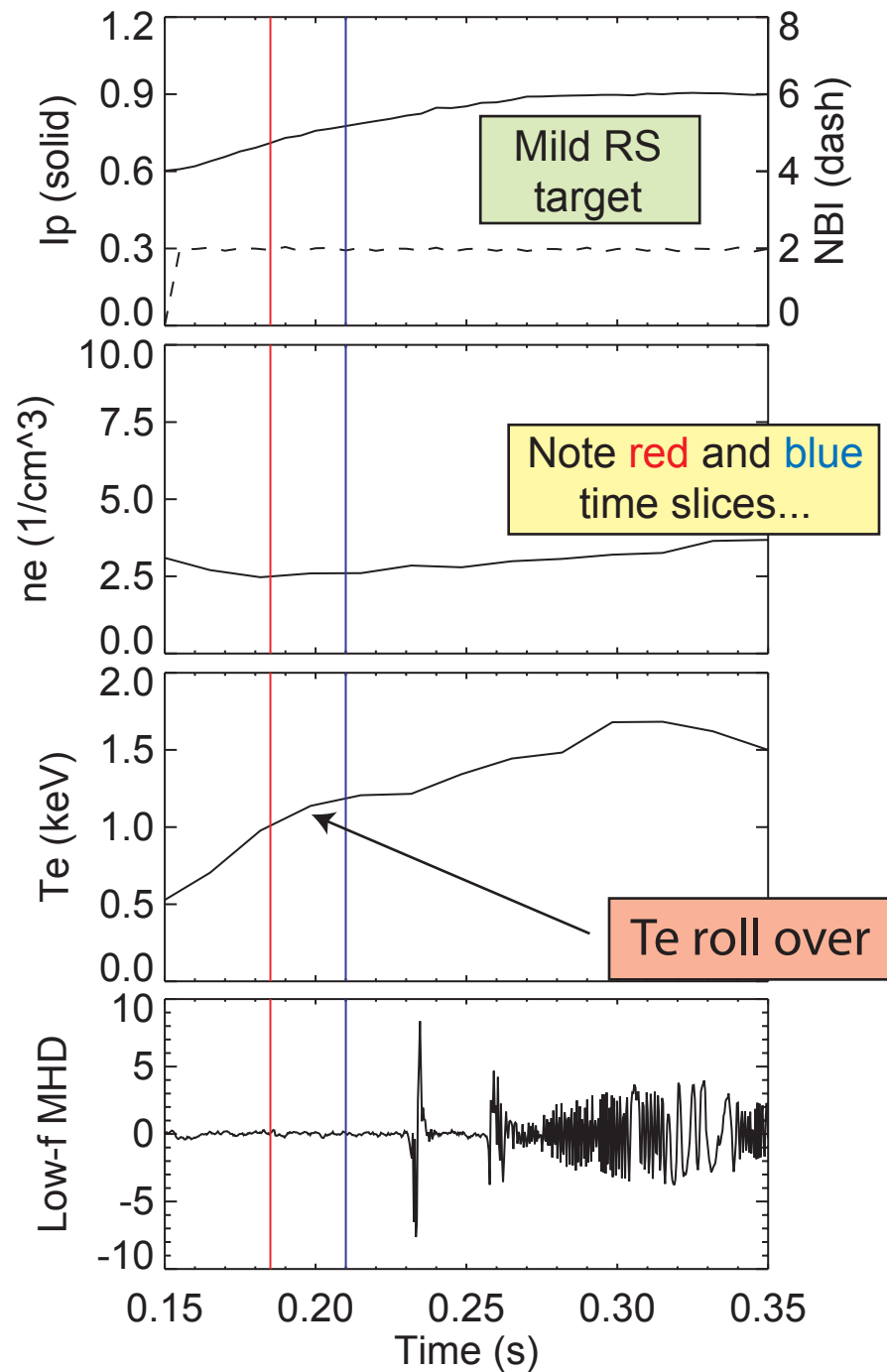
XP 620 objective

Measure core high-k fluctuations at several k's for discharges with a variety of q-profiles

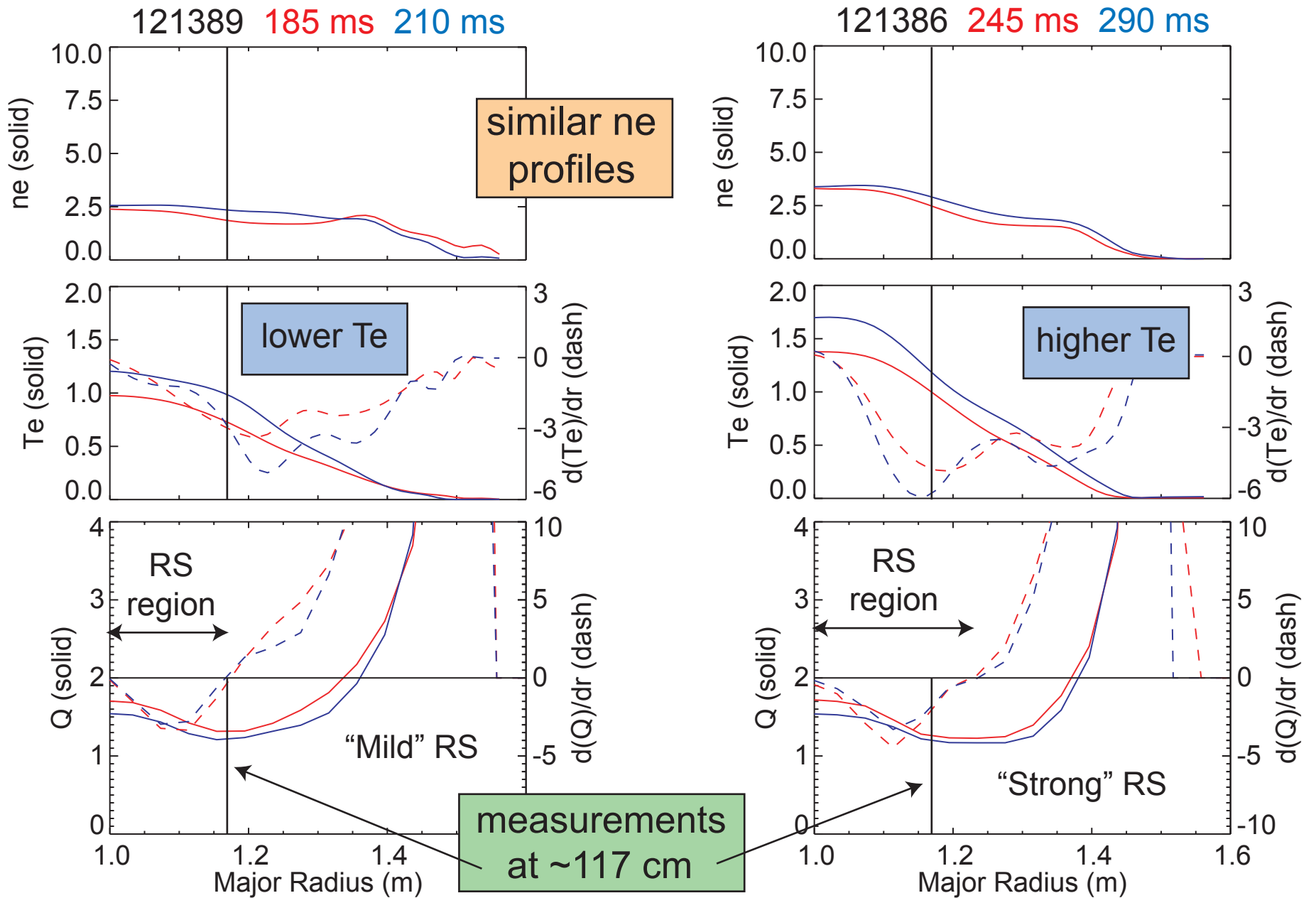
	Monotonic	Mild RS	Strong RS
R ~ 110 cm	121314	121316	121313
R ~ 117 cm	121387	121389	121386
R ~ 121 cm	121373	121374	121375

121389

121386



Profiles at red and blue time slices



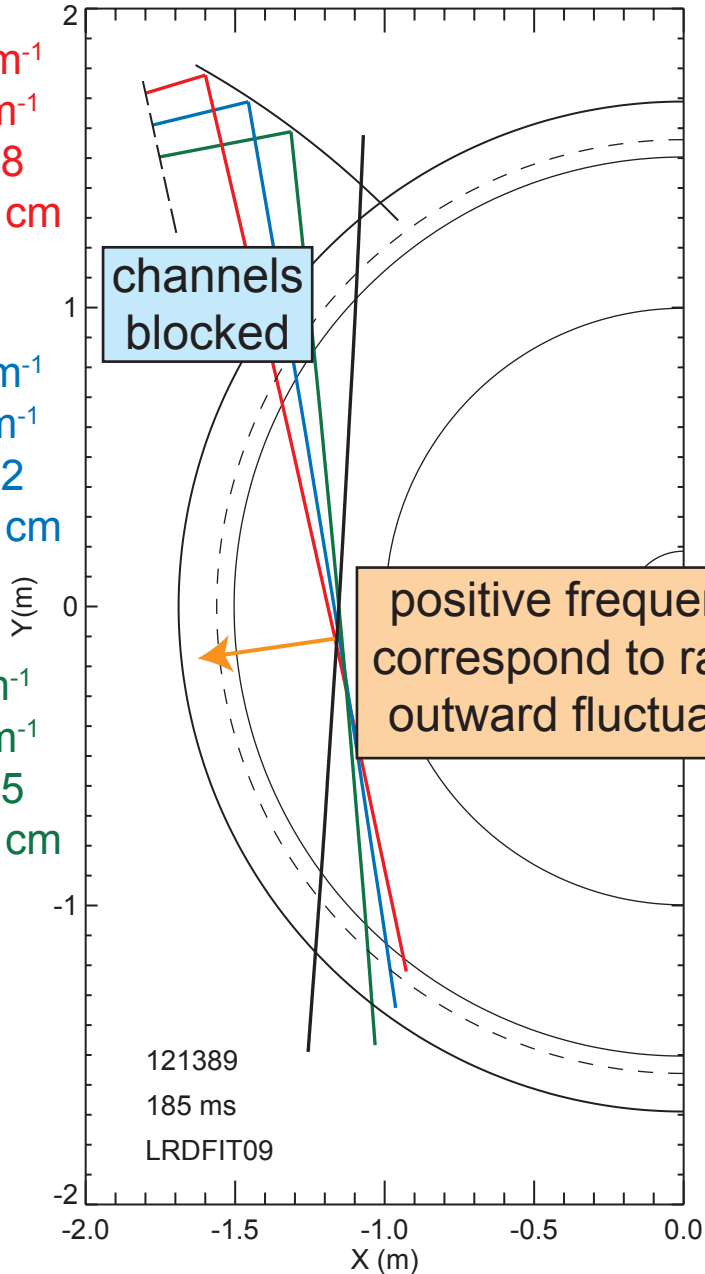
Ray tracing calculations

121389 - "Mild" RS

$k_r = 15.9 \text{ cm}^{-1}$
 $k_{th} = 3.7 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.28$
 $R_{tan} = 118.0 \text{ cm}$

$k_r = 12.6 \text{ cm}^{-1}$
 $k_{th} = 2.9 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.22$
 $R_{tan} = 117.2 \text{ cm}$

$k_r = 8.8 \text{ cm}^{-1}$
 $k_{th} = 1.7 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.15$
 $R_{tan} = 116.8 \text{ cm}$

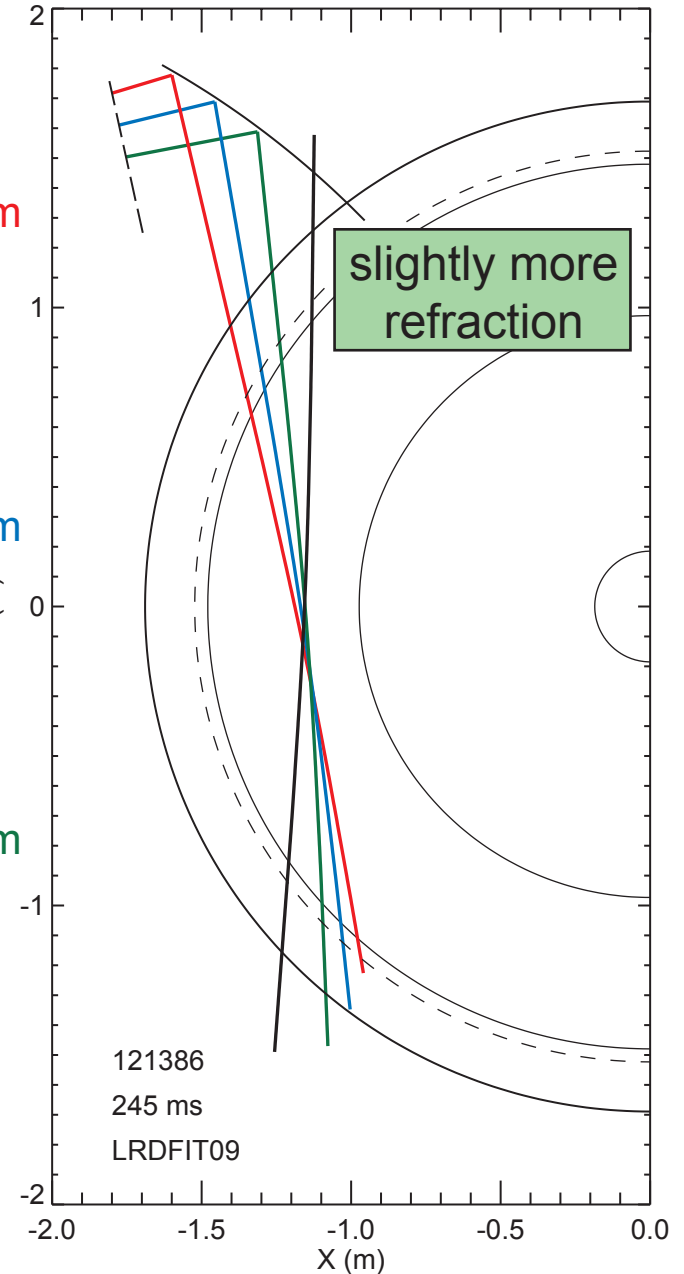


121386 - "Strong" RS

$k_r = 14.5 \text{ cm}^{-1}$
 $k_{th} = 3.1 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.27$
 $R_{tan} = 117.9 \text{ cm}$

$k_r = 11.0 \text{ cm}^{-1}$
 $k_{th} = 2.3 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.21$
 $R_{tan} = 117.3 \text{ cm}$

$k_r = 7.1 \text{ cm}^{-1}$
 $k_{th} = 1.2 \text{ cm}^{-1}$
 $k_{\perp\rho_e} = 0.13$
 $R_{tan} = 117.0 \text{ cm}$

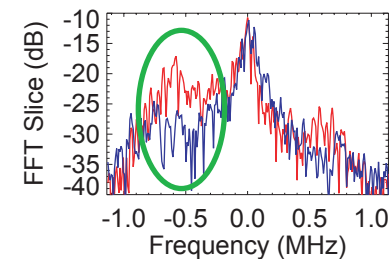
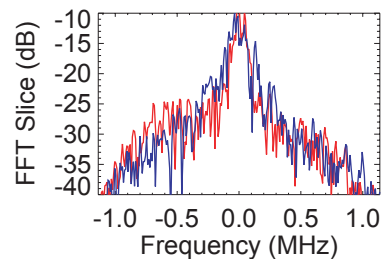
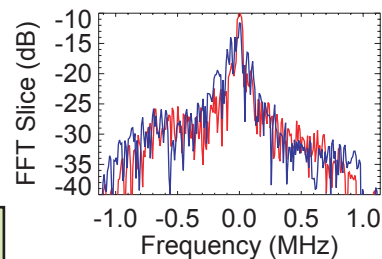
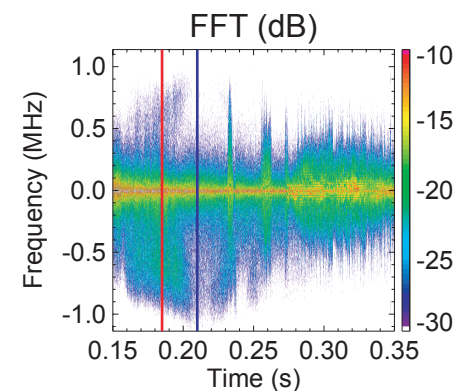
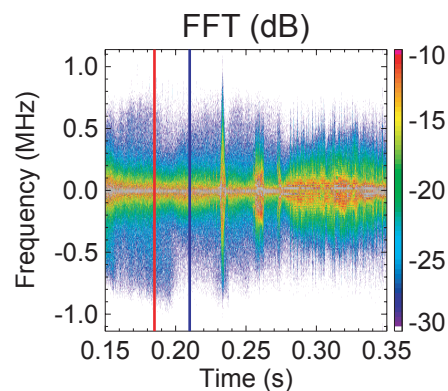
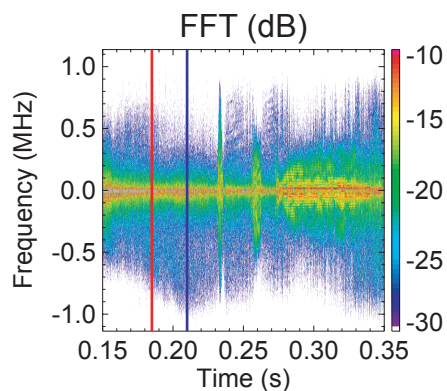


$$k_{\perp}\rho_e \approx 0.14$$

$$k_{\perp}\rho_e \approx 0.21$$

$$k_{\perp}\rho_e \approx 0.27$$

121389
"Mild" RS



red before,
blue after
Te roll over

121386
"Strong" RS

