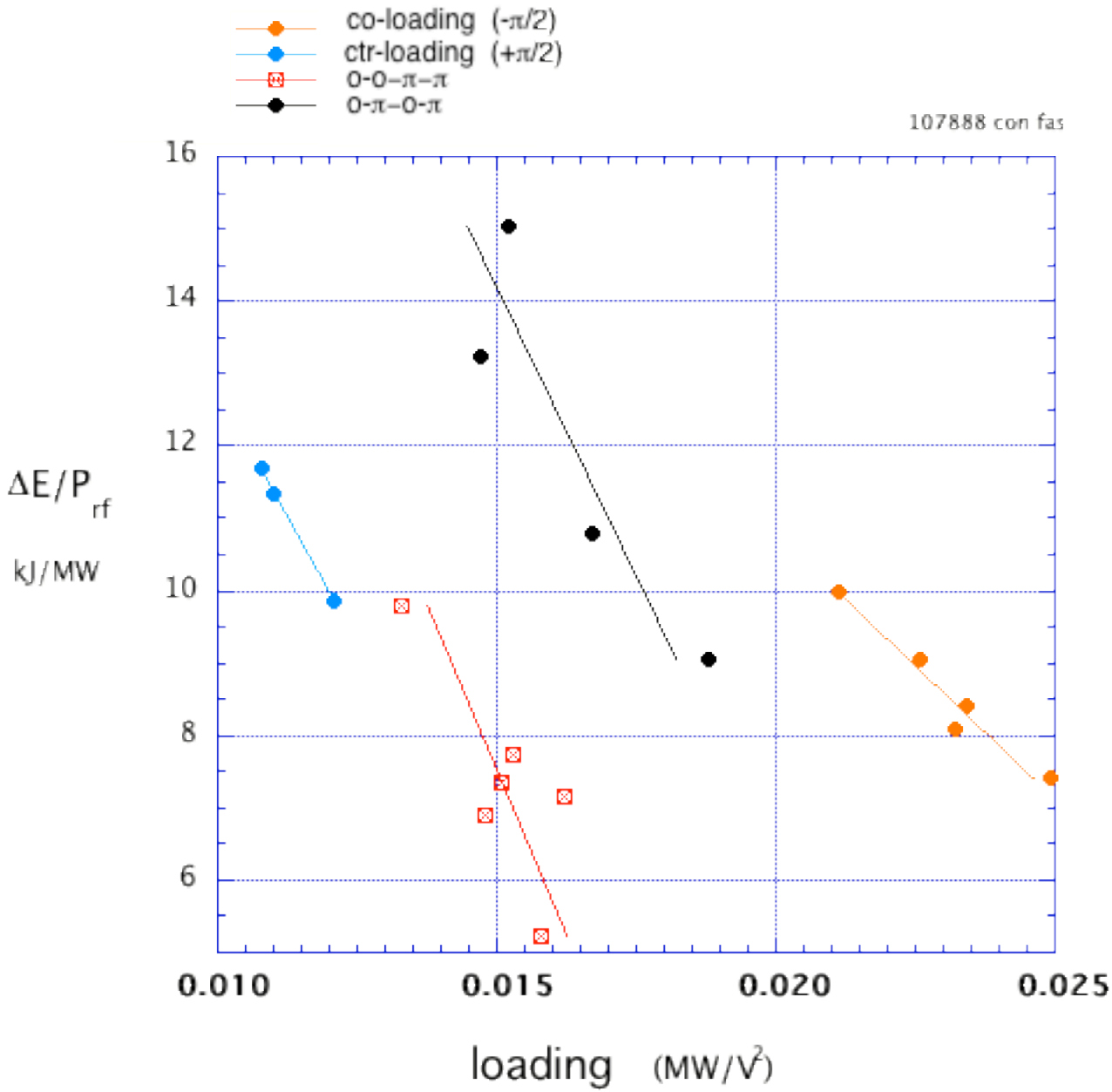
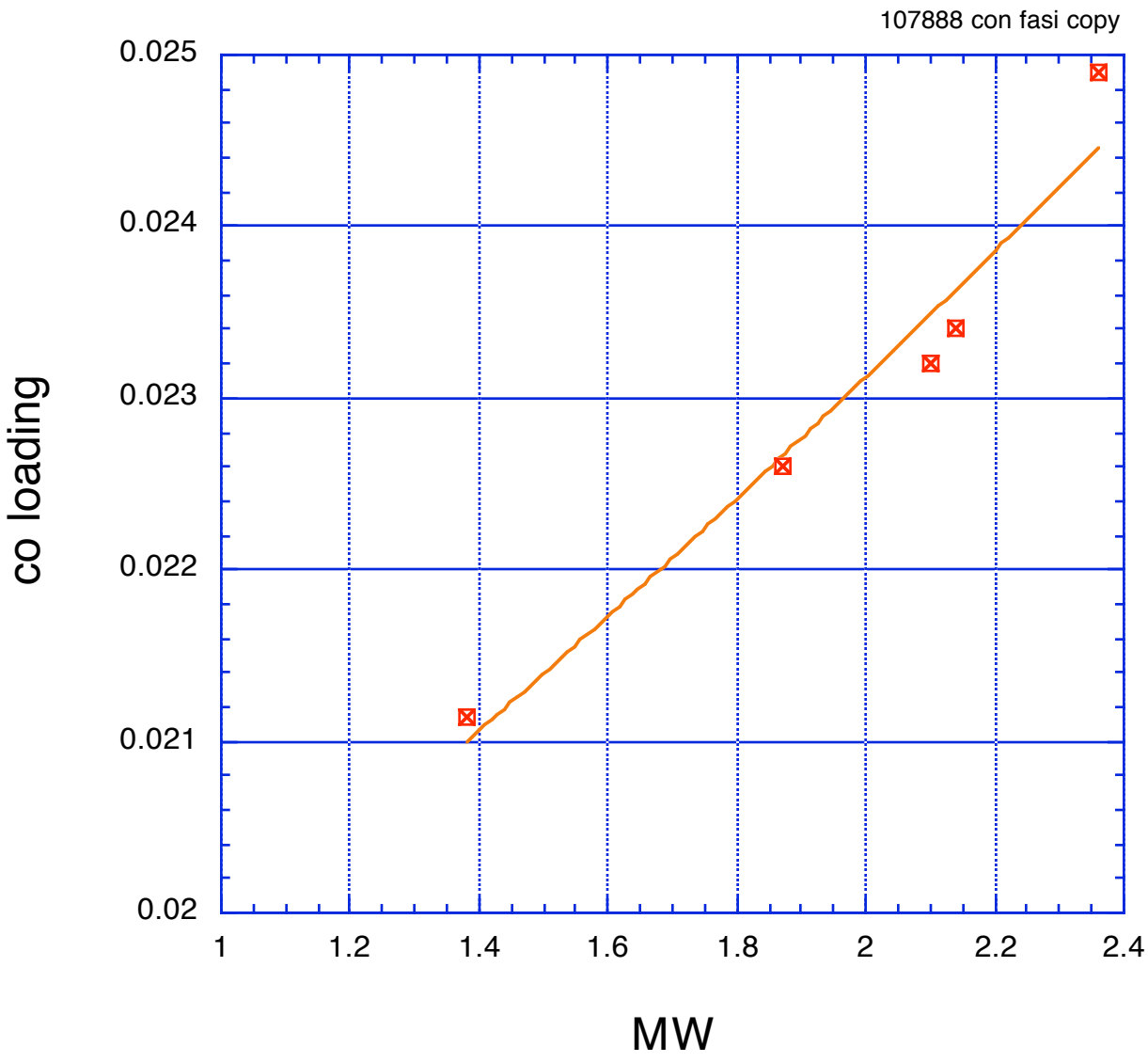
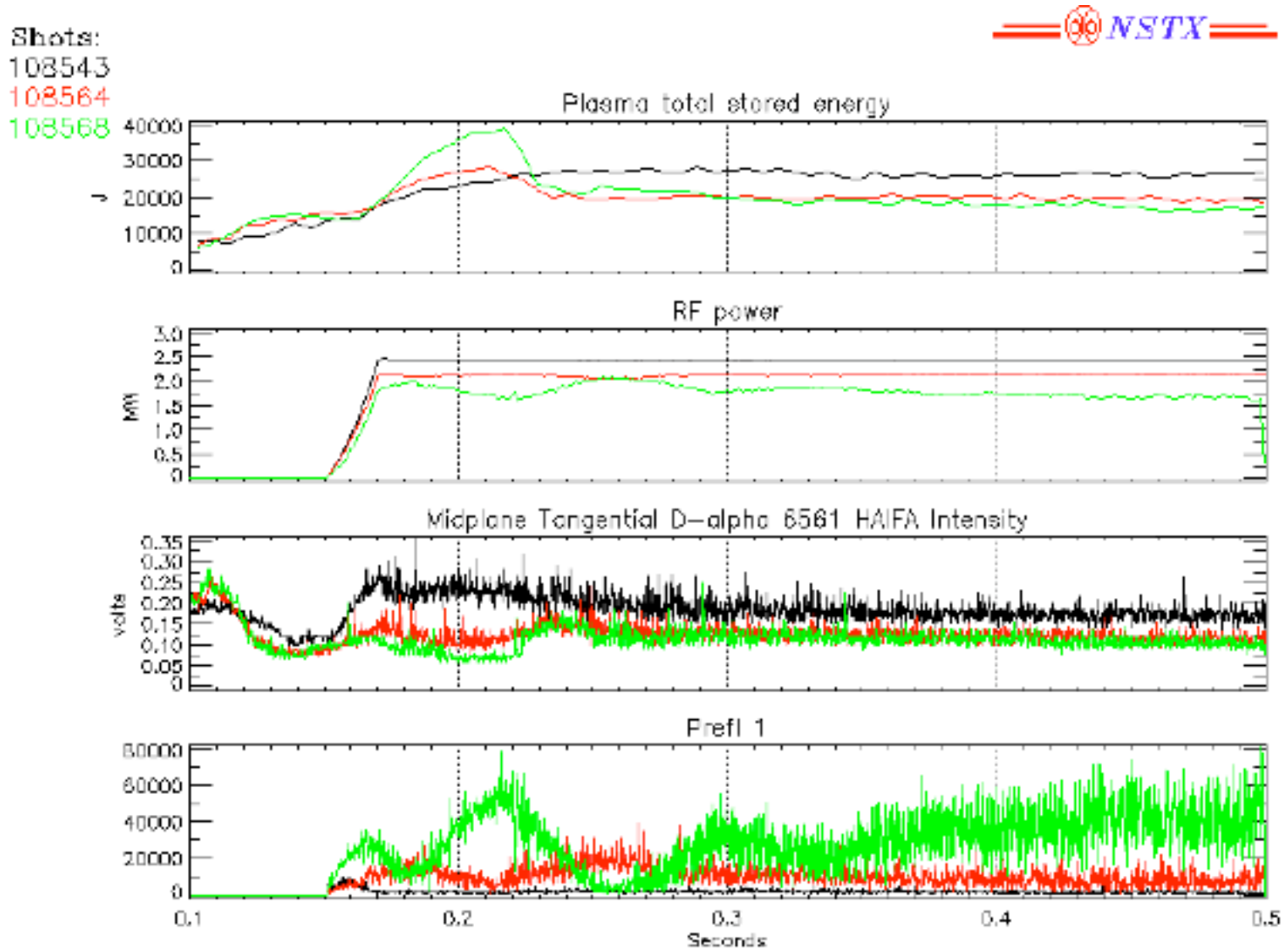

co-loading (-π/2)
ctr-loading (+π/2)
0-0-π-π
0-π-0-π
107888 con fas
16
14
12
10
8
6
ΔE/P_rf
kJ/MW
0.010
0.015
0.020
0.025
loading (MW/V²)


107888 con fasi copy
0.025
0.024
0.023
0.022
0.021
0.02
co loading
1
1.2
1.4
1.6
1.8
2
2.2
2.4
MW


Shots:
108543
108564
108568
NSTX
Plasma total stored energy
J
40000
30000
20000
10000
0
RF power
MW
3.0
2.5
2.0
1.5
1.0
0.5
0
Midplane Tangential D-alpha 6561 HAIFA Intensity
volts
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
Prefl 1
80000
60000
40000
20000
0
0.1
0.2
0.3
0.4
0.5
Seconds

Do ponderomotive effects "push away" the plasma and affect the loading?
Is part of the RF power coupled to surface waves?

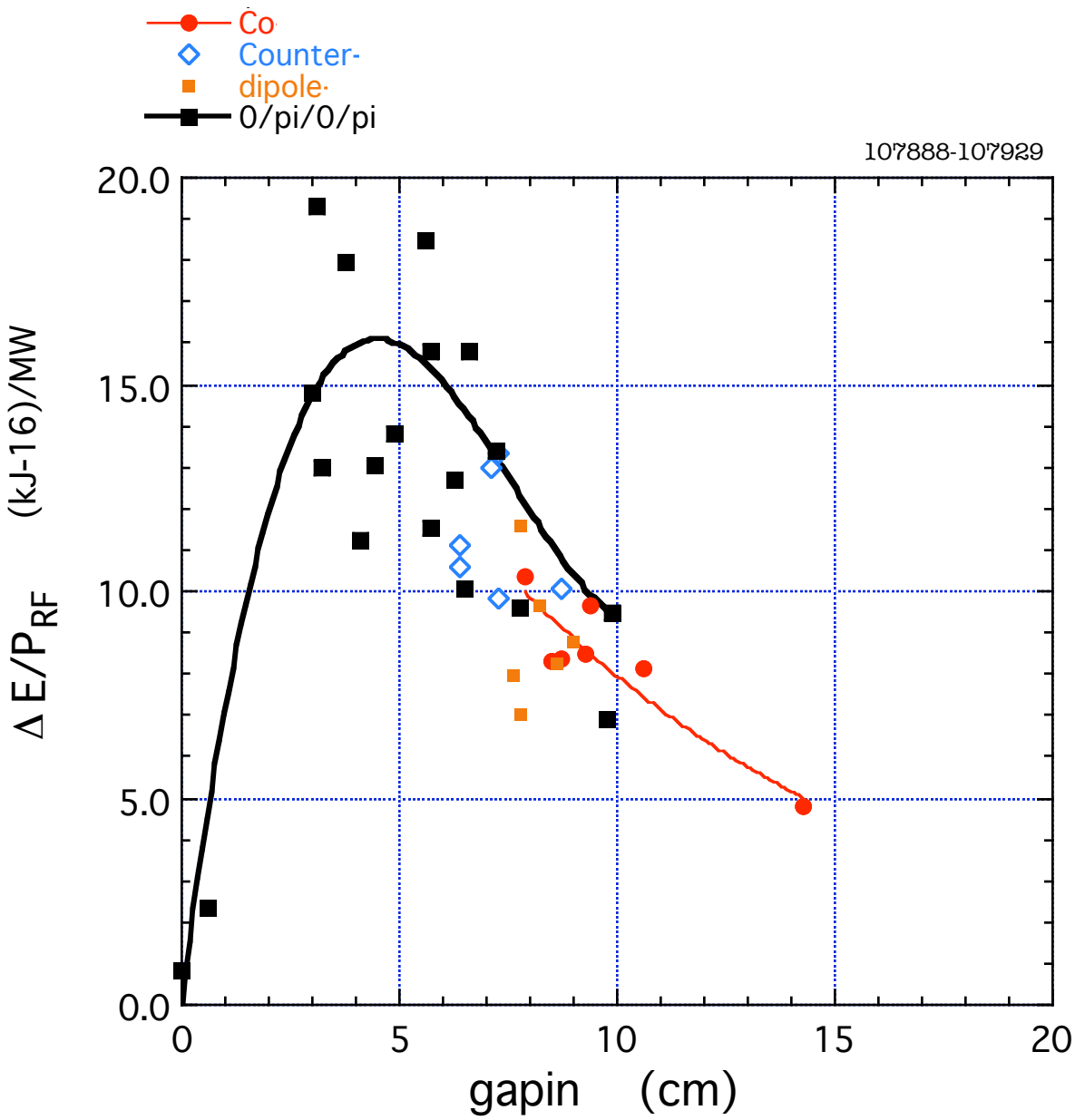
1 insert RF probes to detect surface waves (also decay waves -->JRW)
Can we measure $E_{||}$?

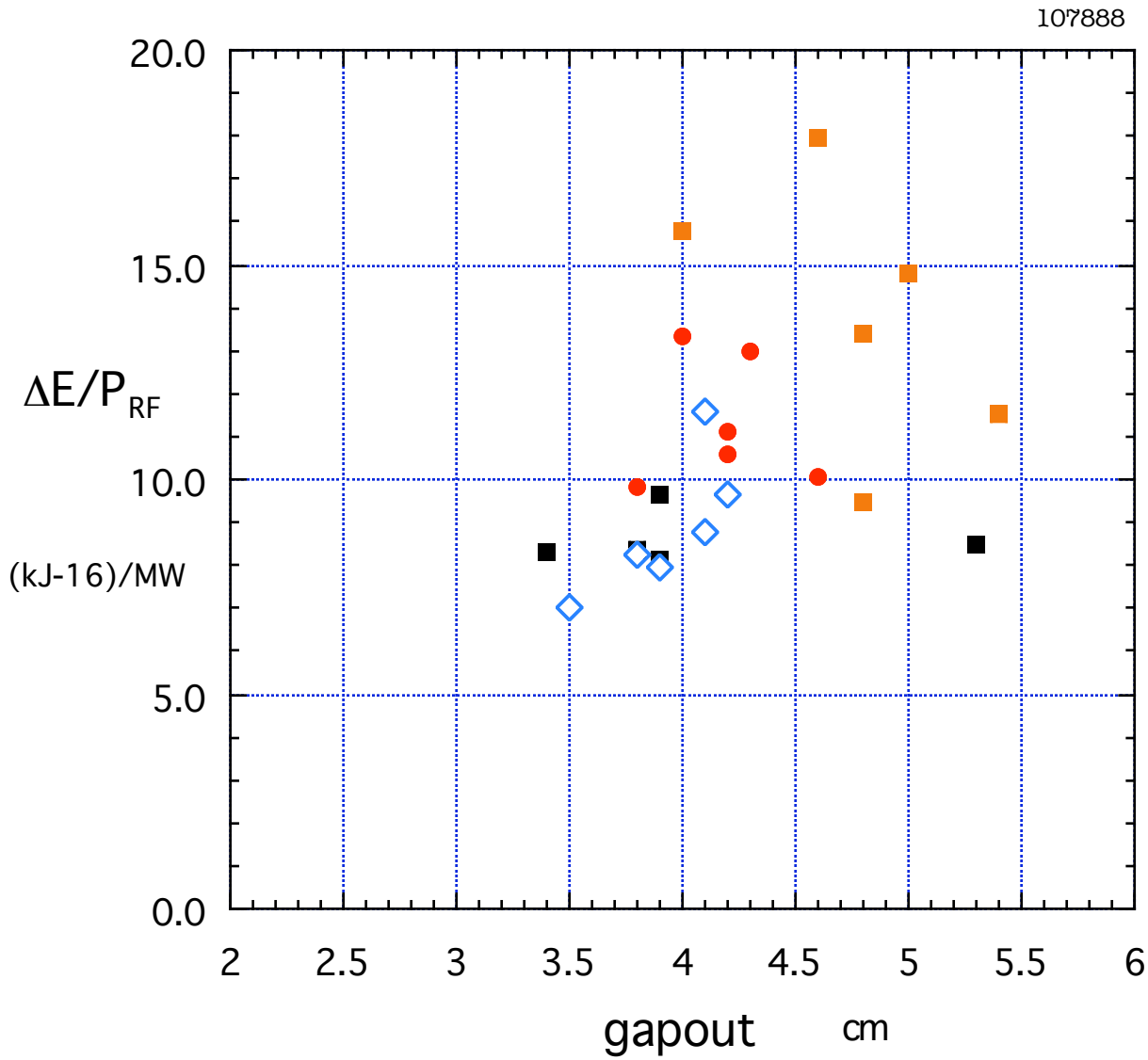
2 Data obtained last years are very incomplete in this respect: have runs varying $E_{||}$:

current
phase
gap-out
gap-in
.....

3 All old data are in single null: try loading/heating in double null.

→ **Given the importance of HHFW for NSTX consider the possibility of inserting a two-straps antenna which could be aligned to the field.**


Co
Counter-
dipole-
0/pi/0/pi
107888-107929
20.0
15.0
10.0
5.0
0.0
0
5
10
15
20
Δ E/P_RF (kJ-16)/MW
gapin (cm)


107888
20.0
15.0
10.0
5.0
0.0
ΔE/P_RF
(kJ-16)/MW
2
2.5
3
3.5
4
4.5
5
5.5
6
gapout
cm