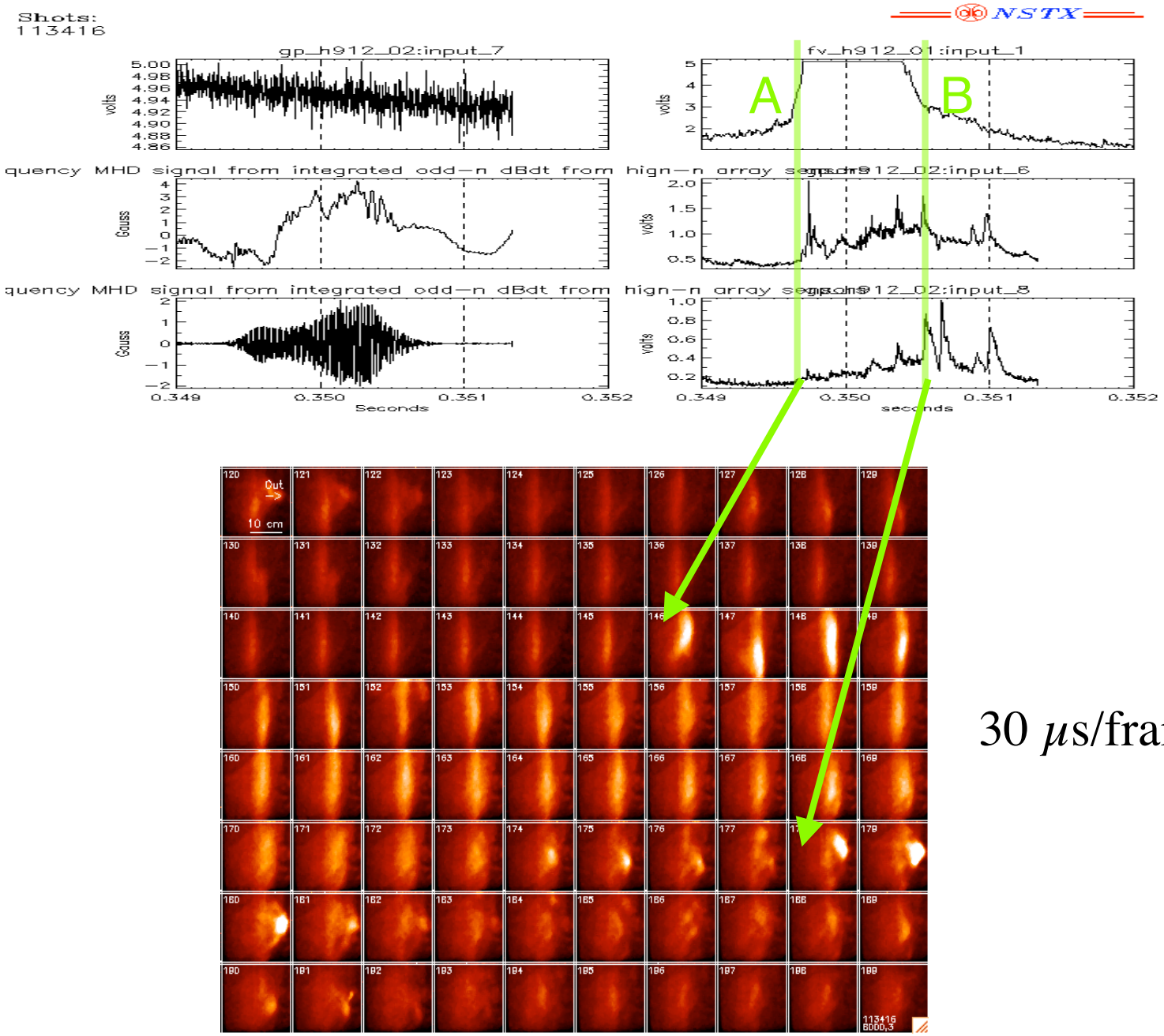
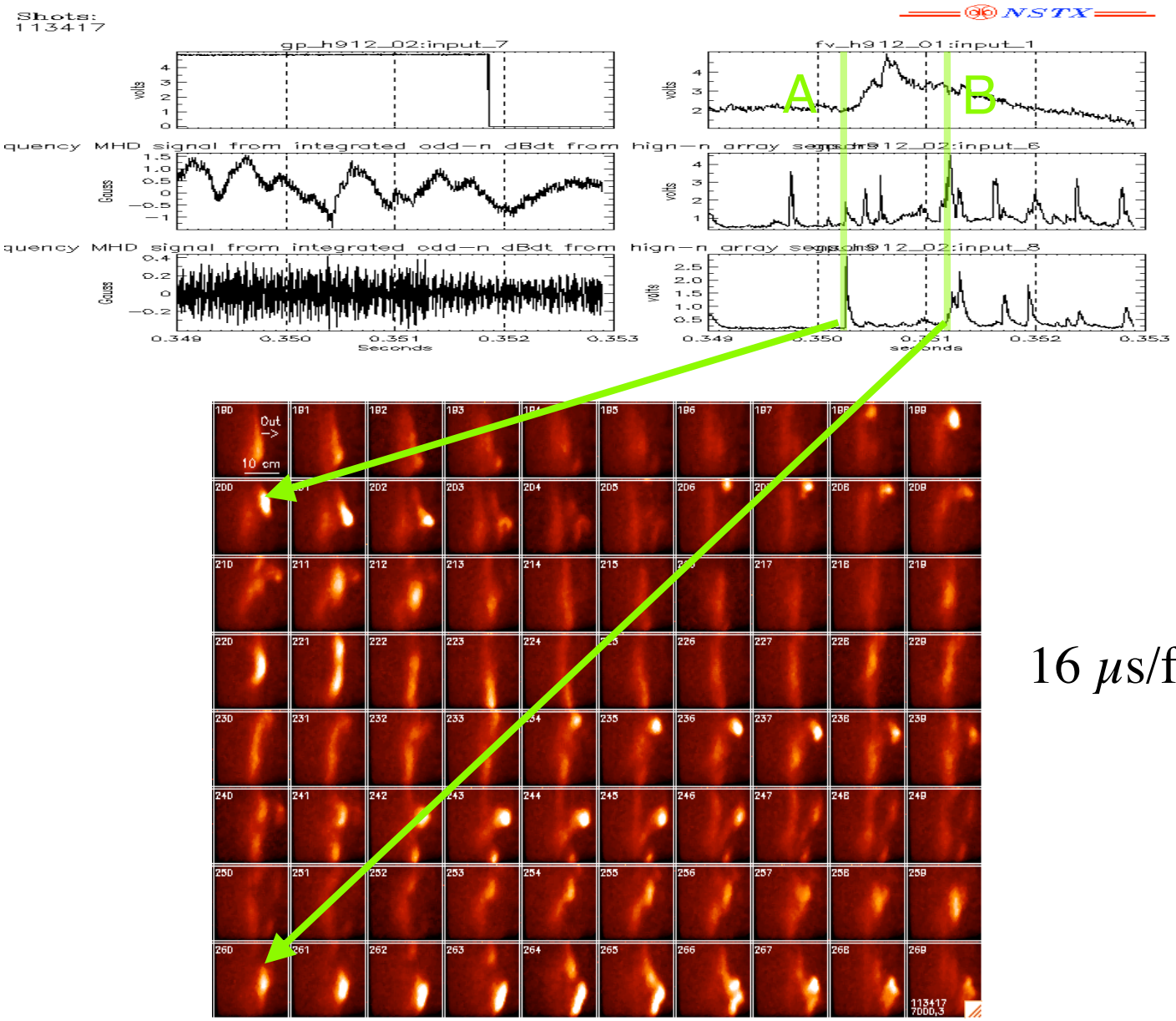
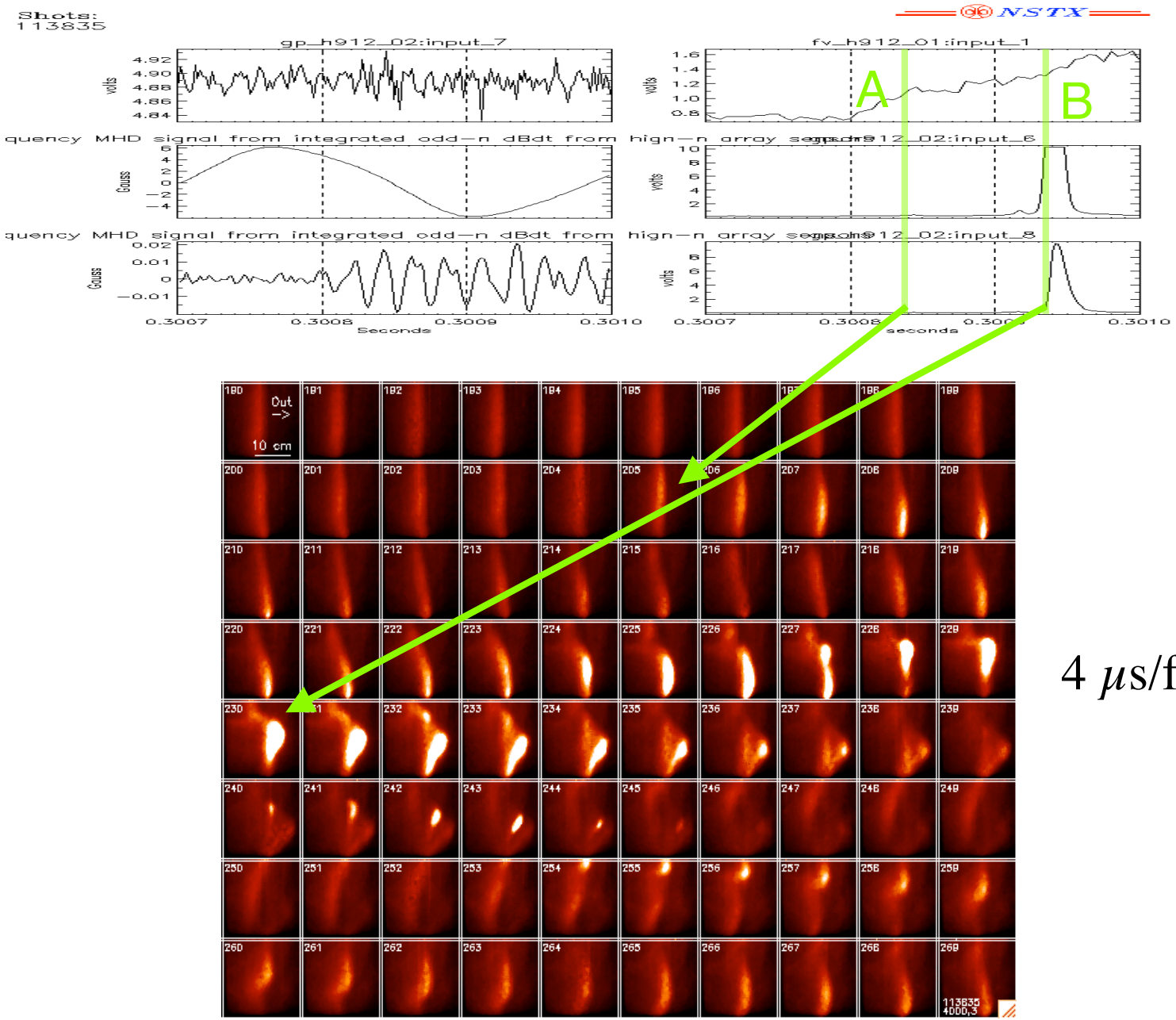

Shots:
113416
NSTX
gp_h912_02:input_7
fv_h912_01:input_1
A
B
quency MHD signal from integrated odd-n dBdt from hign-n array sensors
gp_h912_02:input_6
quency MHD signal from integrated odd-n dBdt from hign-n array sensors
gp_h912_02:input_8
volts
Gauss
Seconds
seconds
Out
10 cm
113416
6000,3

30 μs/frame


Shots:
113417
NSTX
gp_h912_02:input_7
fv_h912_01:input_1
A
B
volts
Gauss
Seconds
0.349
0.350
0.351
0.352
0.353
Out
10 cm
113417
7000,3

16 μs/frame


Shots:
113835
NSTX
gp_h912_02:input_7
fv_h912_01:input_1
A
B
volts
Gauss
Seconds
seconds
0.3007
0.3008
0.3009
0.3010
Out
10 cm

4 μs/frame

ELMs in GPI: Initial Observations and Questions

(Based on 113416, 113417, 113835 ONLY)

Some Observations:

- all 3 ELMs correlate with bursts of small-scale light fluctuations in GPI which look like L-mode "blobs" (i.e. local intermittent density fluctuations)

- in one case (113417), similar GPI bursts occur before, during, and after the ELM (as seen previously, see NF '04)

- in one case (113835), the ELM is preceeded by an MHD-like precurser in both GPI and B-dot signals (but not in the other two cases)

Some Questions:

- what is the relation between ELMs in GPI and in divertor Dα ? (delay time ?)
- how does GPI ELM data compare with probe, reflectometer, FIReTIP, Thomson ?
- is the ELM primarily magnetic (MHD) or electrostatic (drift wave), or both ?
- what triggers the ELM ? what ends the ELM ? need connection to theory !!