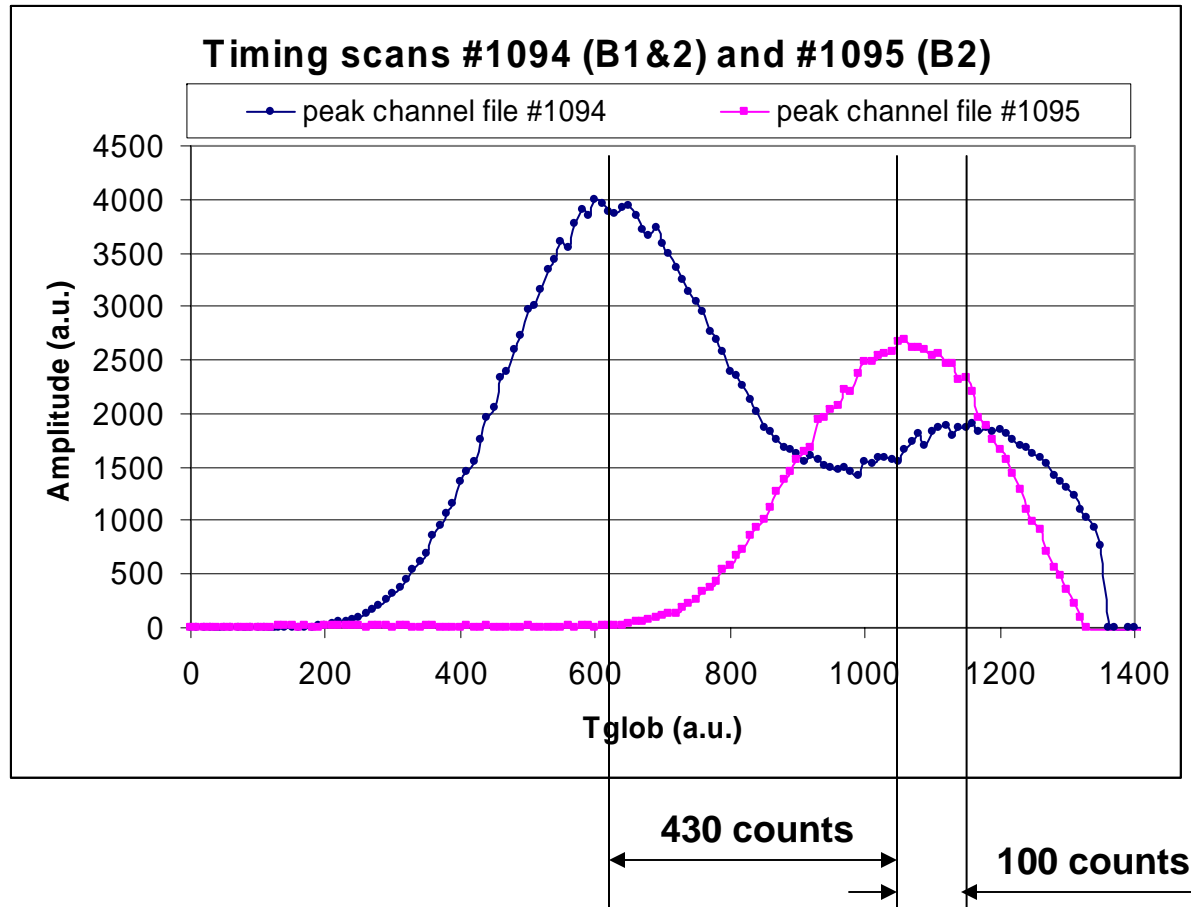
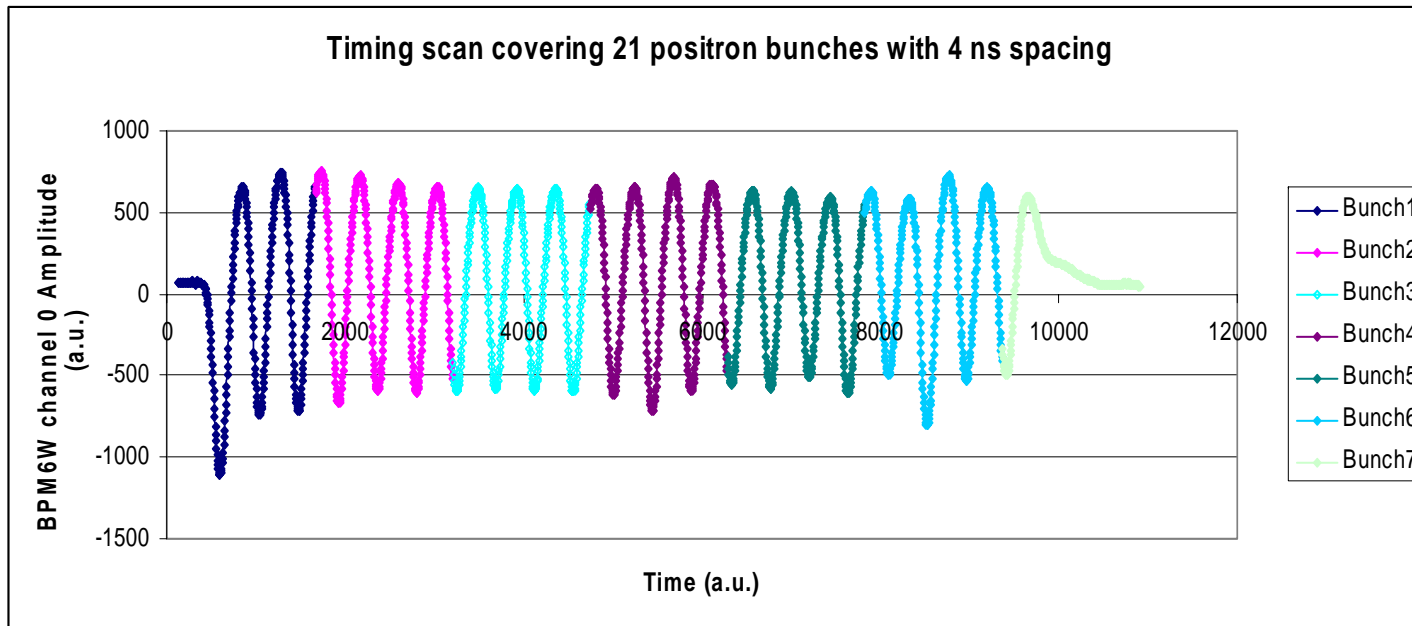


Positron timing scan for 4 ns bunch spacing using BSM23E



Positron timing scan (file 2077) for 4 ns bunch spacing using BPM6W1



Note that the legend refers to bunches which would normally have 14 ns bunch spacing

Timing table for file 2077

4 ns bunch	14 ns bunch	Tglob
1	1	599
2	1	1044
3	1	1480
4	2	392
5	2	828
6	2	1262
7	3	174
8	3	611
9	3	1047
10	3	1481
11	4	393
12	4	828
13	4	1265
14	5	174
15	5	611
16	5	1047
17	5	1480
18	6	395
19	6	827
20	6	1266
21	7	176

Tglob was obtained using a parabolic fit in gnuplot

Electron timing scans for 4 ns bunch spacing using BPM6W1

Timing scan for 4 ns spaced electron bunches; only one bunch in the machine for each measurement.

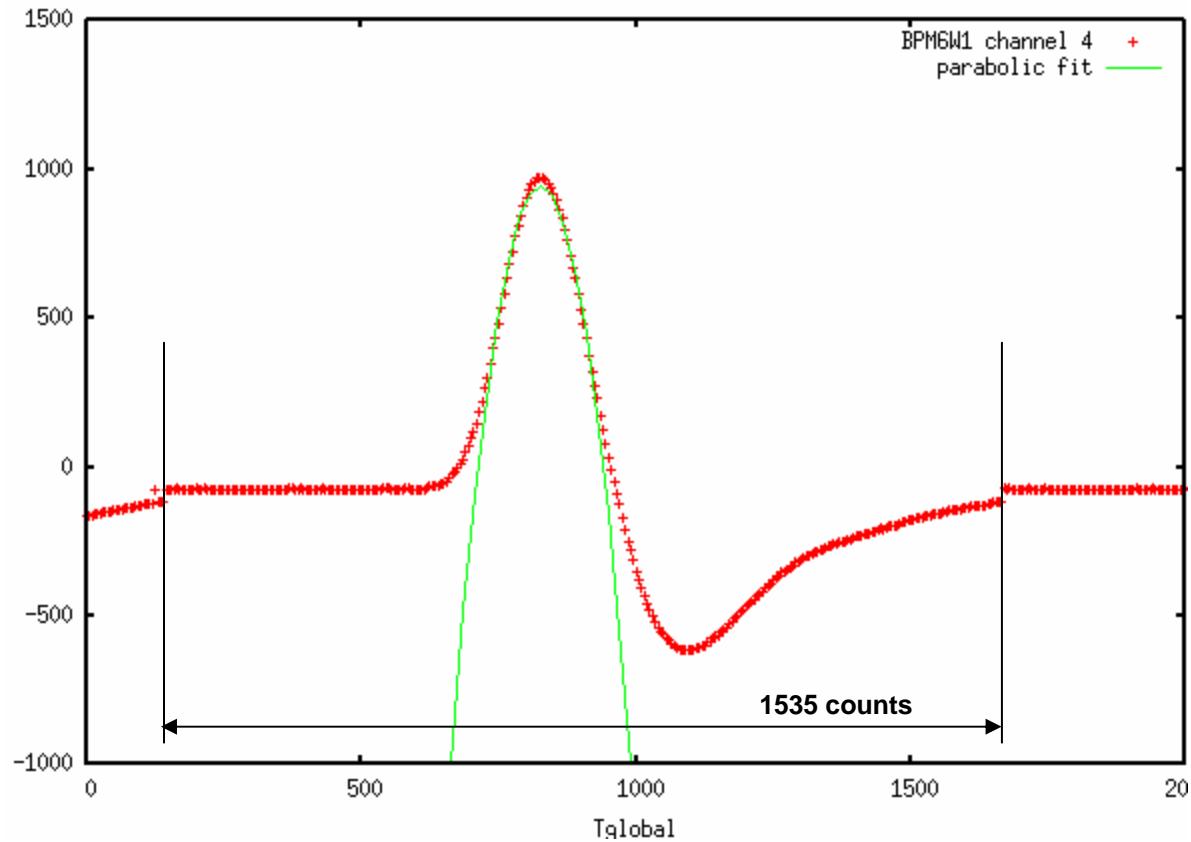
4ns bunch #	14ns bunch#	file#	Tglob*	measured delta (c.u.)	measured delta(ns)
2	1	2120	1479	436	3.98
3	2		380	447	4.08
4	2	2123	827	434	3.96
5	2	2124	1261	438	3.99
6	3	2126	164	439	4.00
7	3	2127	603		

estimated

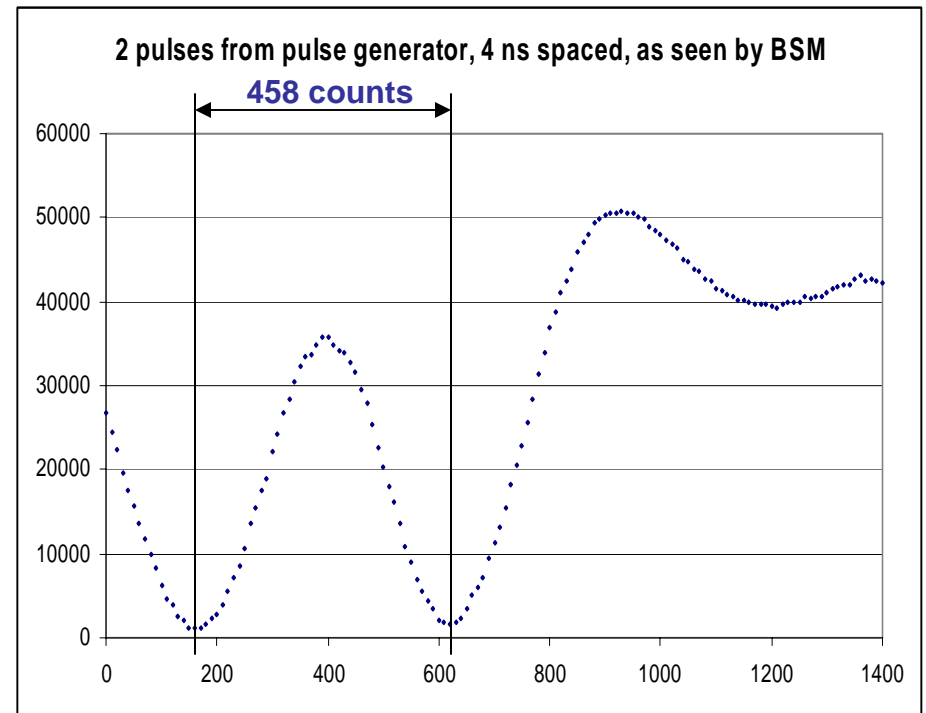
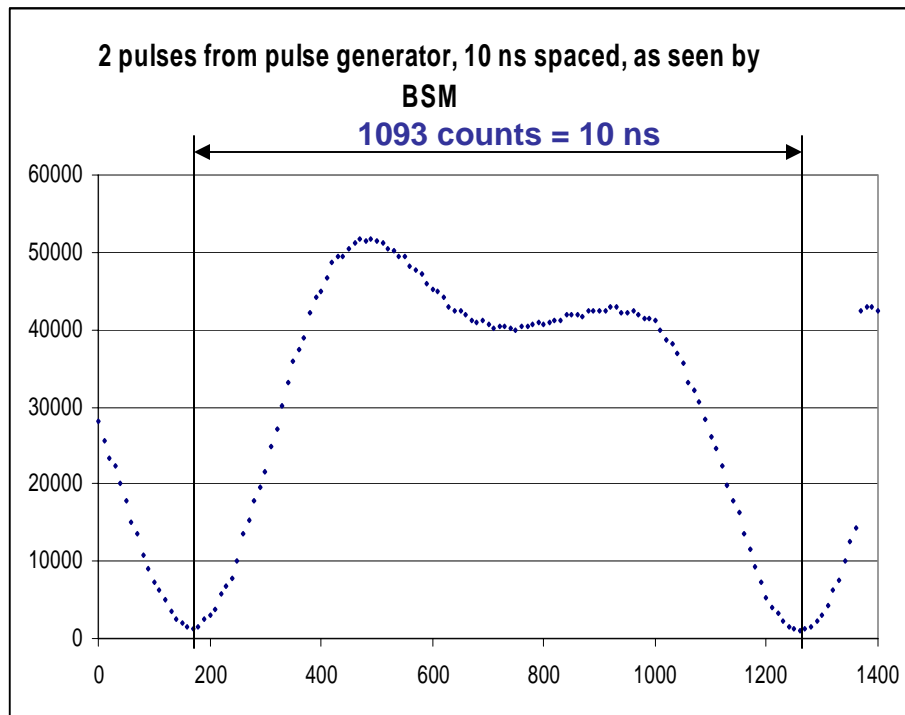
* Tglob was obtained using a parabolic fit in gnuplot

14 ns correspond to 1535, so one timing count=

9.12052117 ps



BSM (SN005) response using modified FE filter



- If one takes the 1093 counts as a calibration for 10 ns, the 458 counts would correspond to 4.19 ns (in stead of 4 ns).
- Note however that the Lecroy pulse generator used, produces pulses with rise and fall times than can not be set smaller than 0.9 ns (actual pulse length may be over 3 ns !)