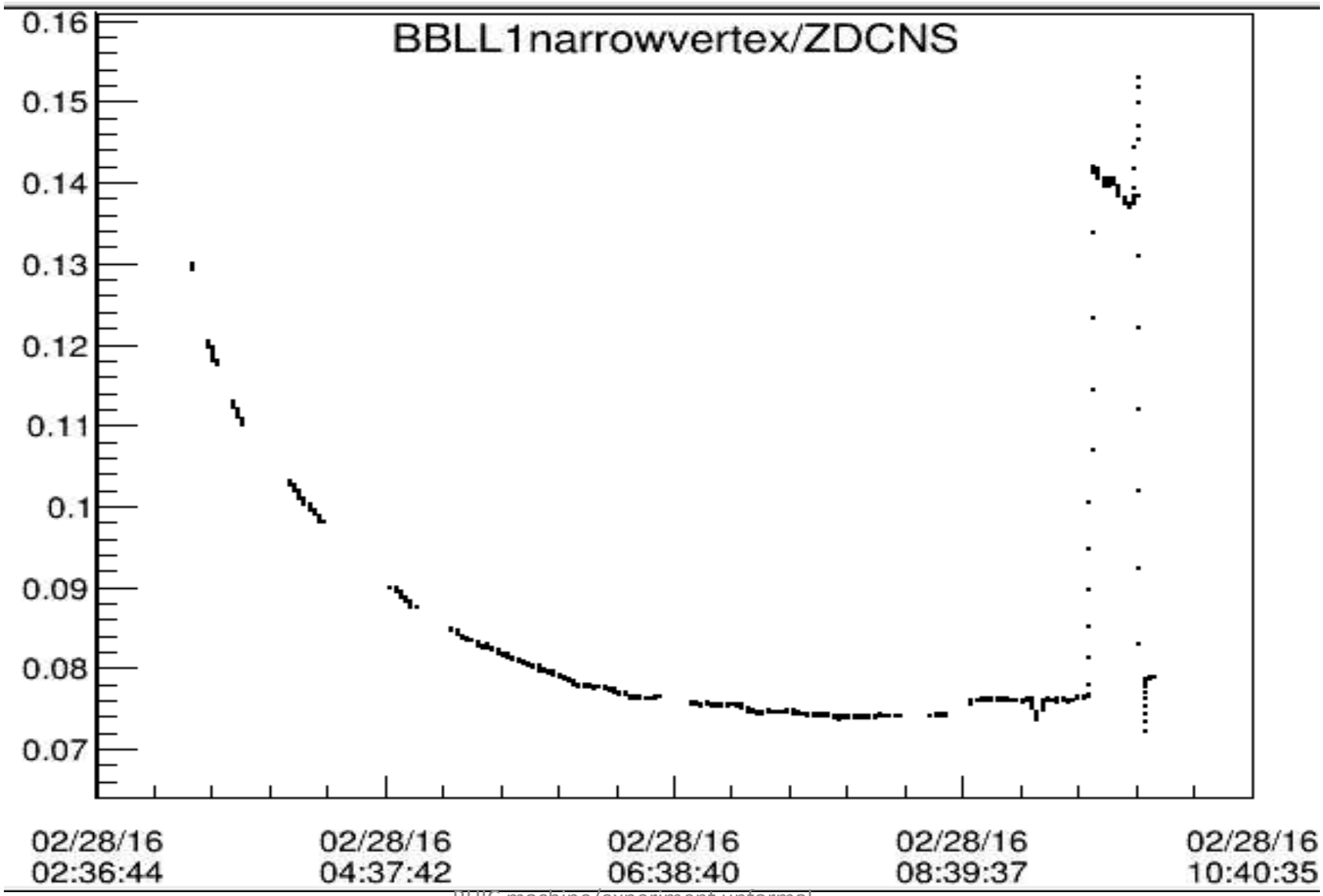
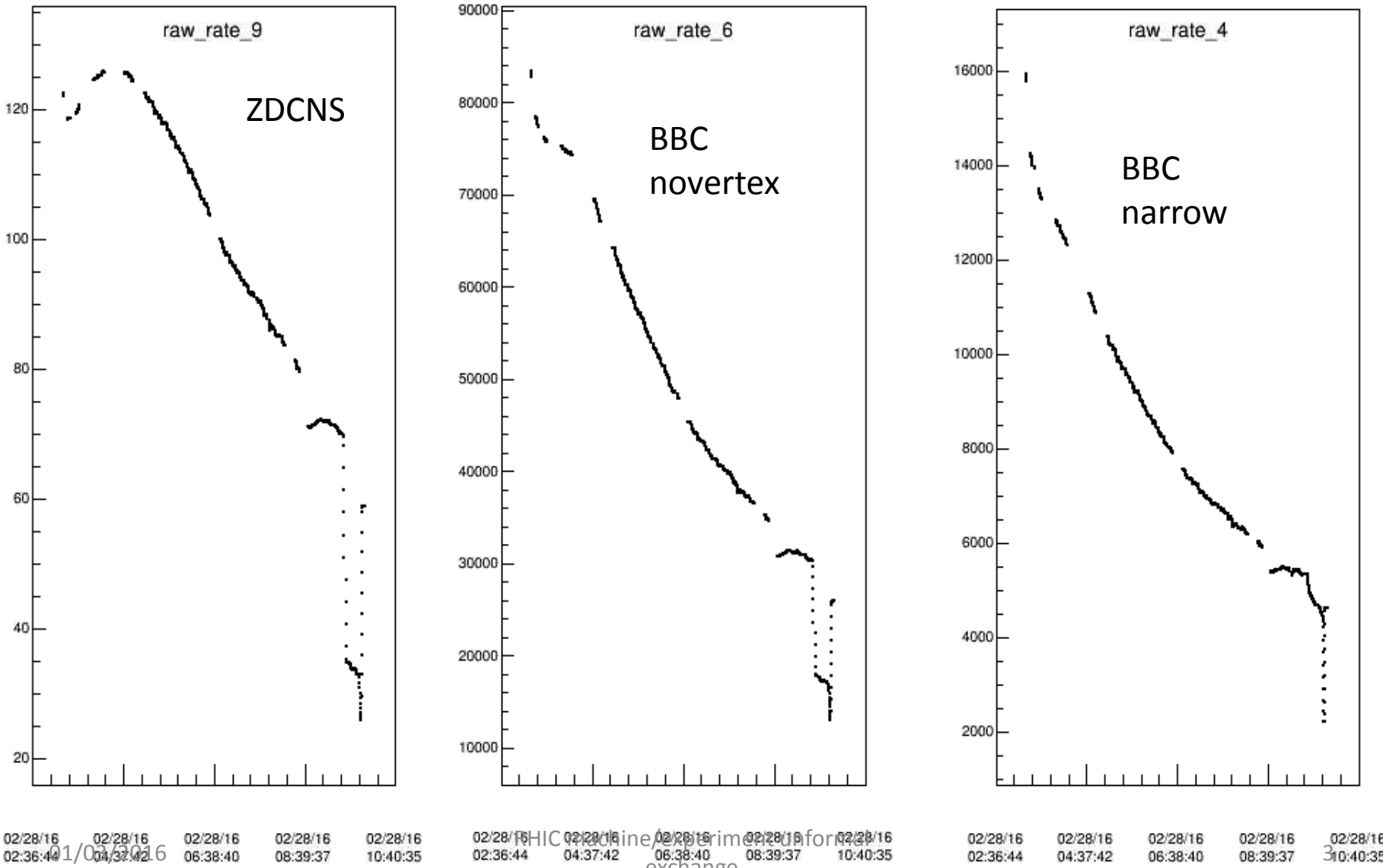
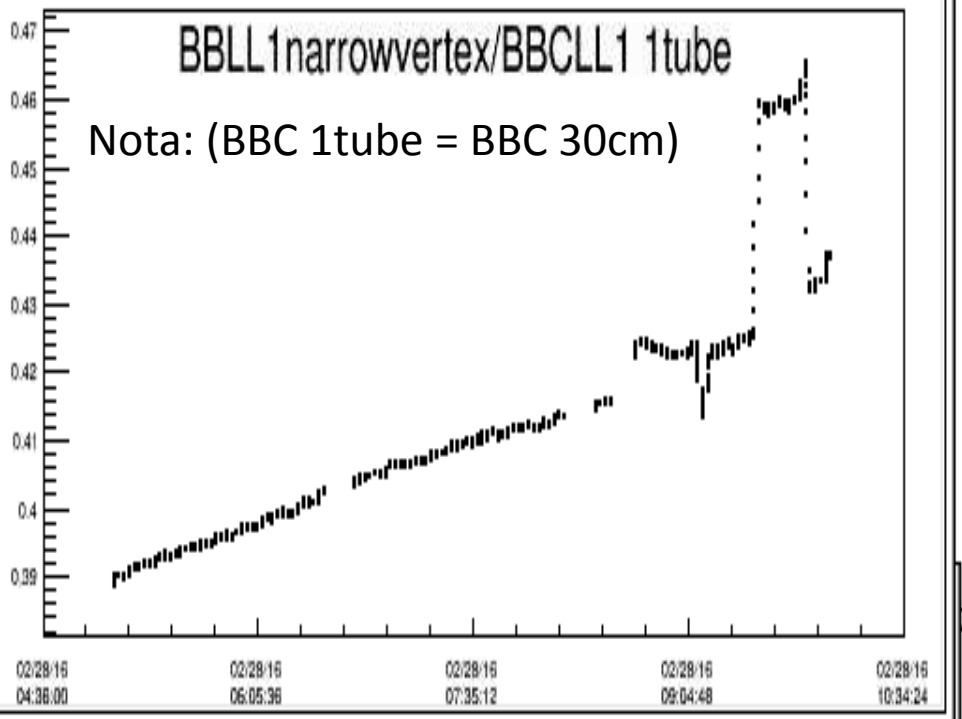
Looking for narrow/x changes in stores

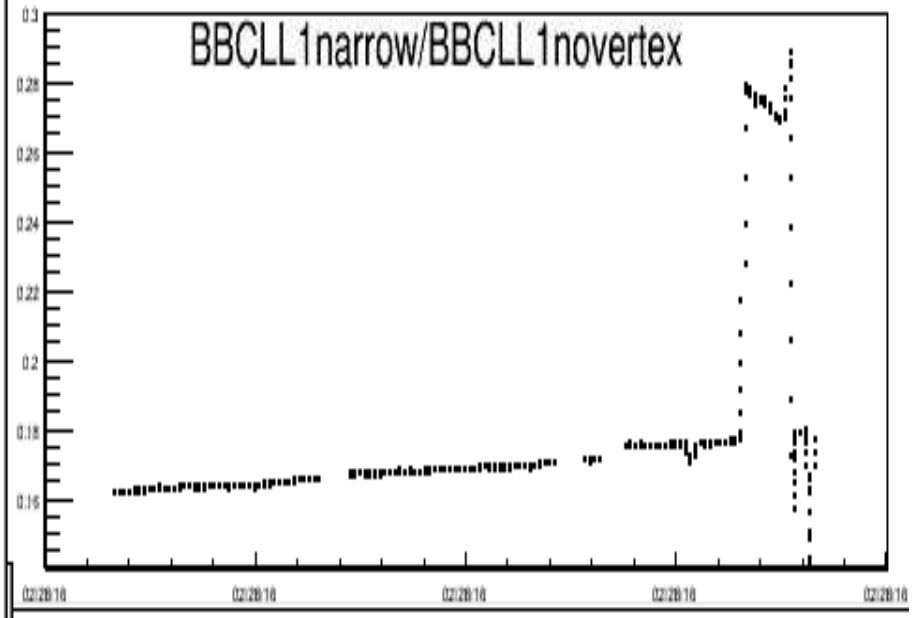
Denis Jouan , PHENIX

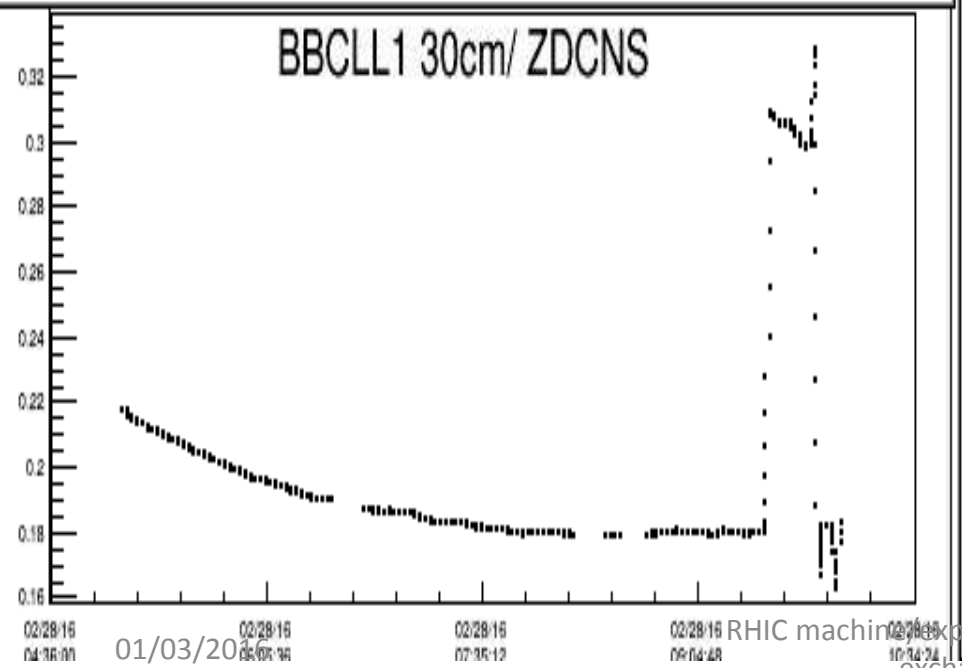
Dramatic BPM effect

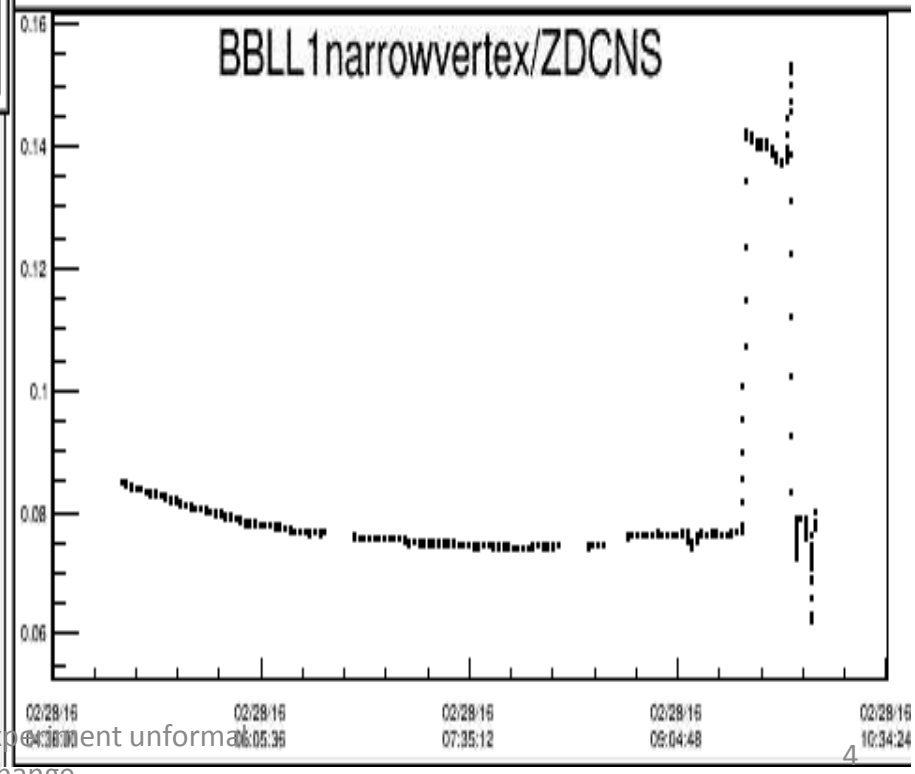


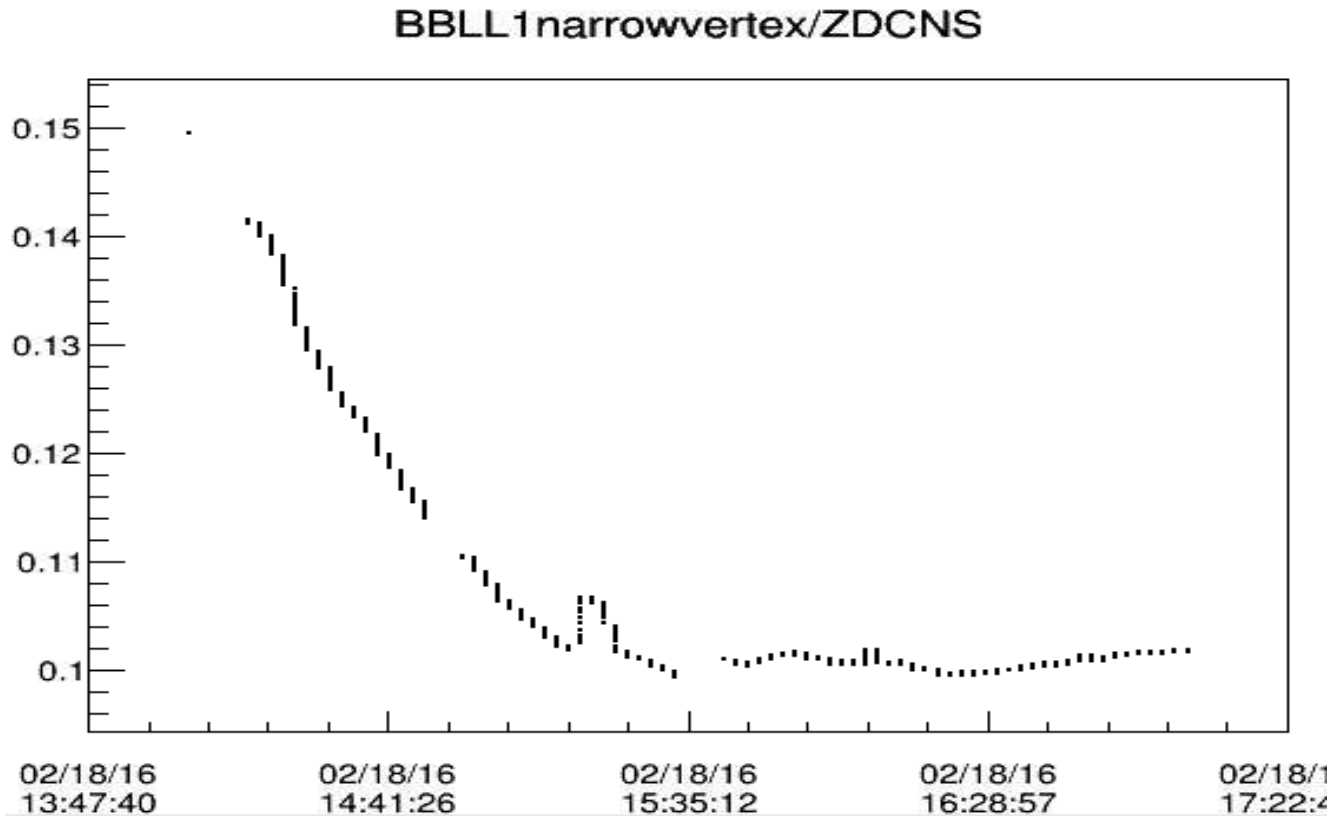

raw_rate_9
ZDCNS
raw_rate_6
BBC
novertex
raw_rate_4
BBC
narrow
02/28/16 02:36:44
02/28/16 04:37:42
02/28/16 06:38:40
02/28/16 08:39:37
02/28/16 10:40:35


BBLL1narrowvertex/BBCLL1 1tube
Nota: (BBC 1tube = BBC 30cm)
0.47
0.46
0.45
0.44
0.43
0.42
0.41
0.4
0.39
02/28/16 04:36:00
02/28/16 06:05:36
02/28/16 07:35:12
02/28/16 09:04:48
02/28/16 10:34:24

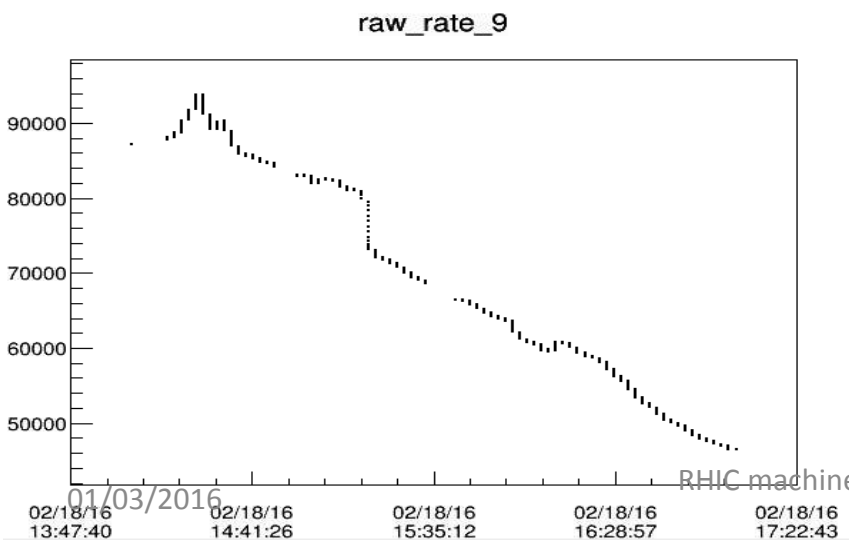

BBCLL1narrow/BBCLL1novertex
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
02/28/16
02/28/16
02/28/16
02/28/16
02/28/16

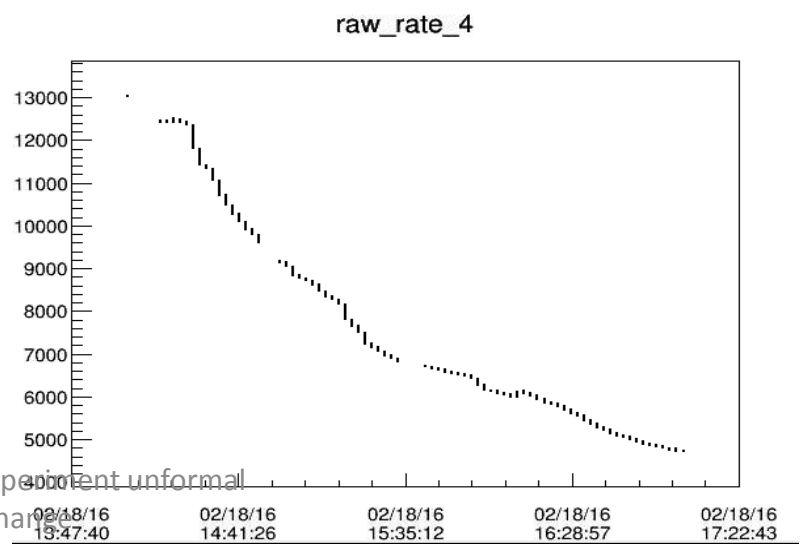

BBCLL1 30cm/ ZDCNS
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
02/28/16
02/28/16
02/28/16
02/28/16

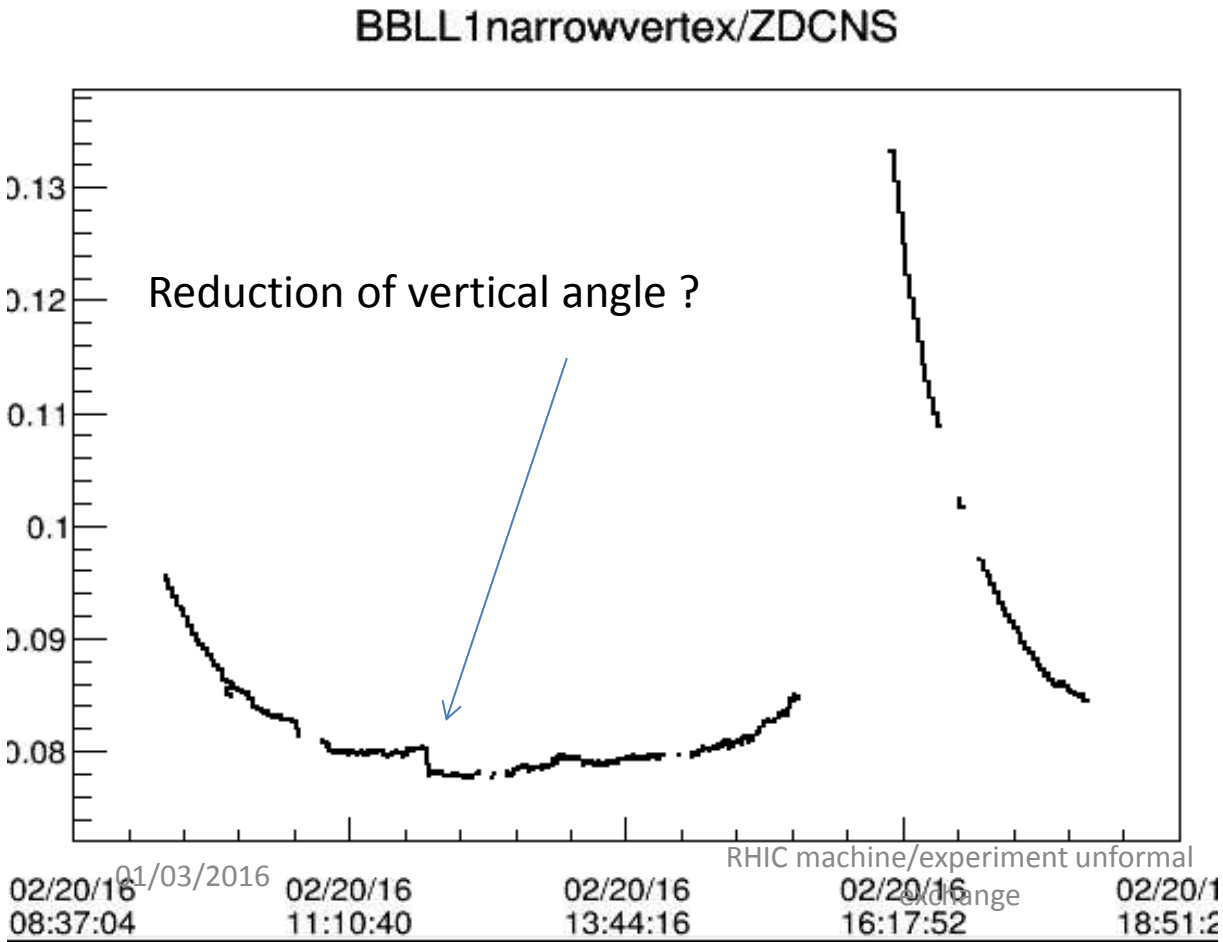

BBLL1narrowvertex/ZDCNS
0.16
0.14
0.12
0.1
0.08
0.06
02/28/16 04:36:00
02/28/16 06:05:36
02/28/16 07:35:12
02/28/16 09:04:48
02/28/16 10:34:24

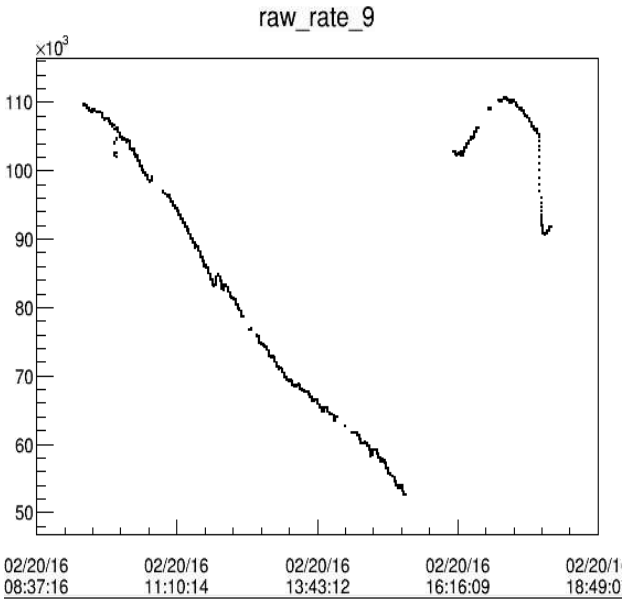


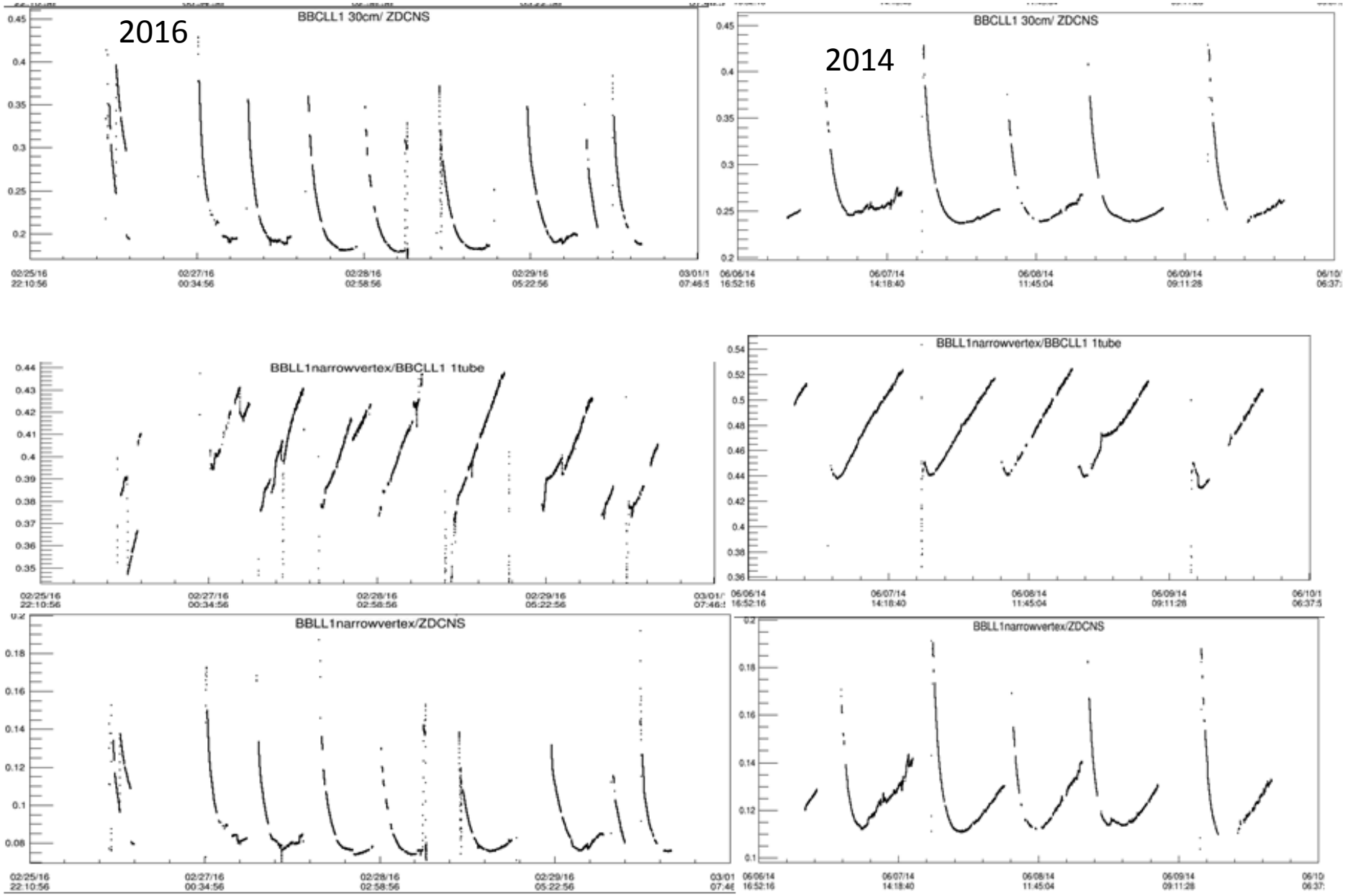
Collimation effect ?






BBLL1narrowvertex/ZDCNS
Reduction of vertical angle ?
0.13
0.12
0.11
0.1
0.09
0.08
02/20/16 08:37:04
02/20/16 11:10:40
02/20/16 13:44:16
02/20/16 16:17:52


raw_rate_9
x10^3
110
100
90
80
70
60
50
02/20/16 08:37:16
02/20/16 11:10:14
02/20/16 13:43:12
02/20/16 16:16:09

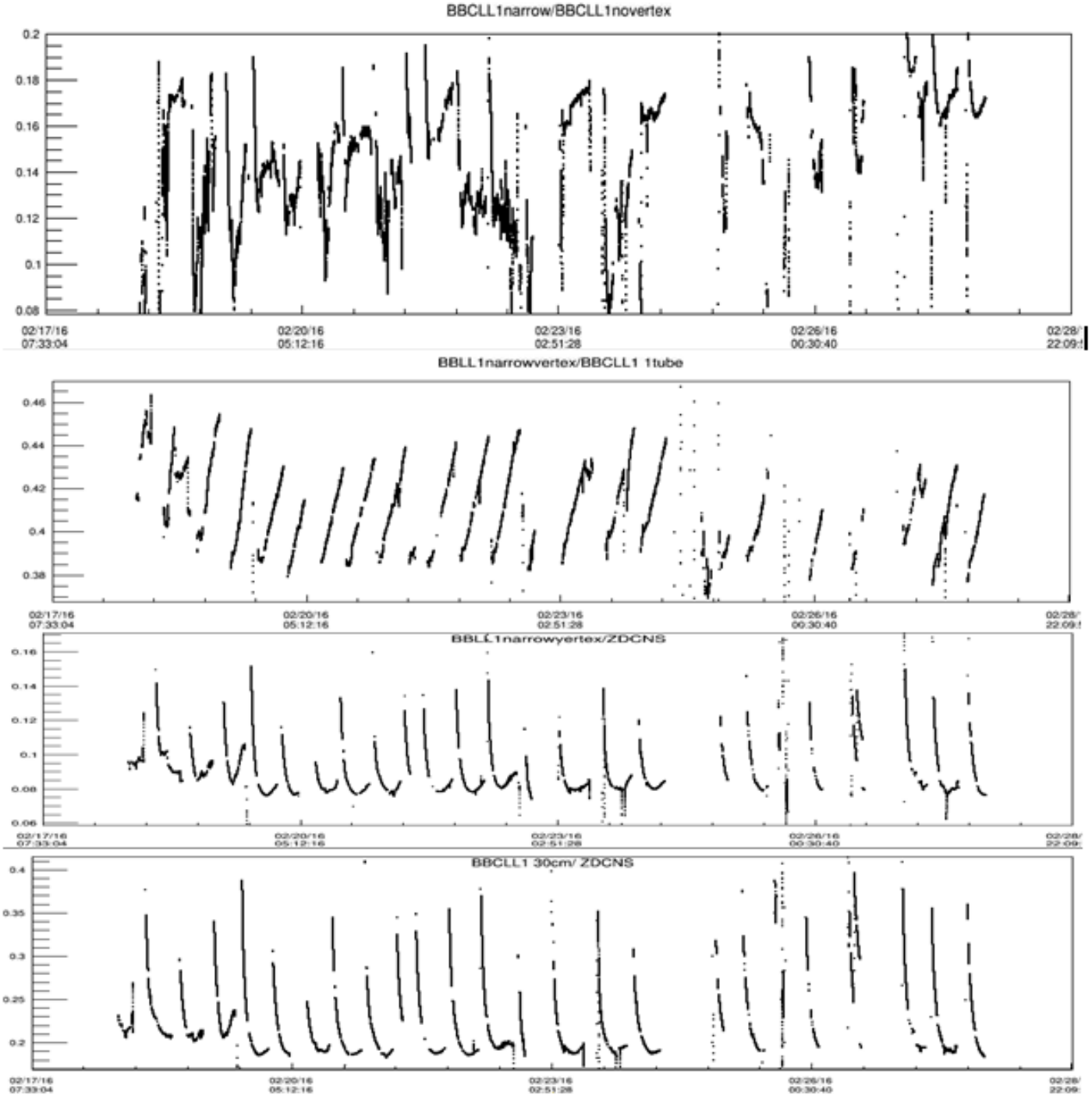


Qualitatively compatible with : 20% decrease of narrowvertex trigger selectivity (12->10cm), and increase of 30% of collisions with >30cm ?

(from A.Bazilevsky)

Ratio BBC
« Narrow » or
« 30cm »
Over «BBC
novertex » (all Z)

Values for different runs show a recent increase

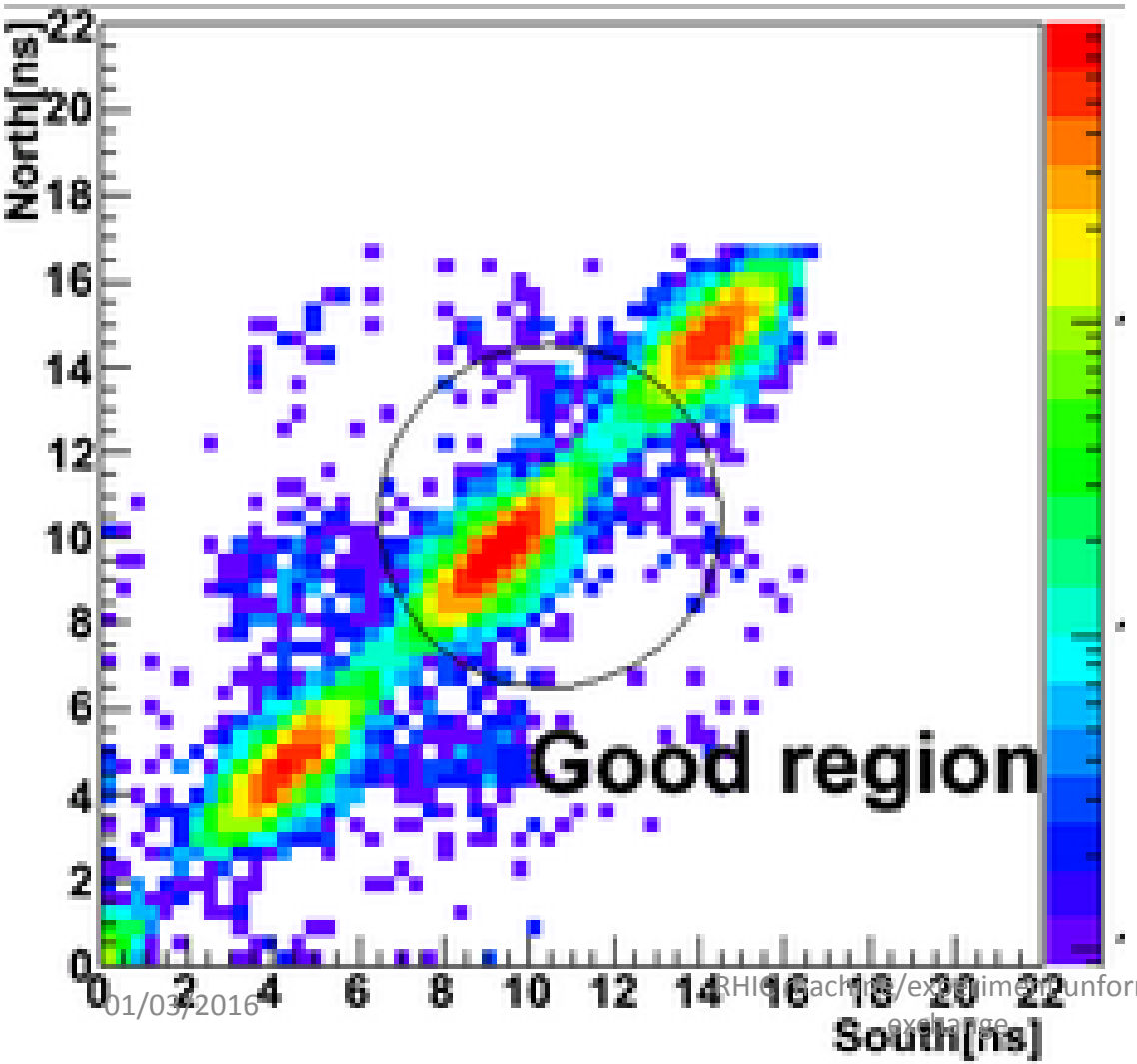


The increase observed in the most recent period seems related to BBC novertex more thant other ratios and in particular to ZDC.

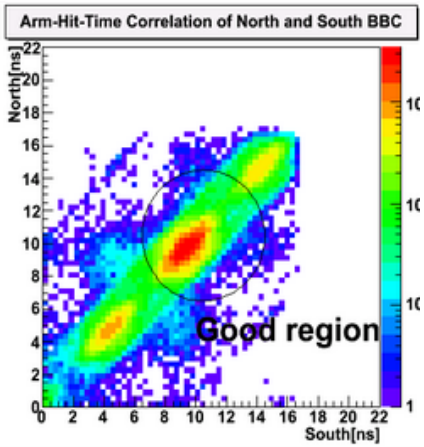
perhaps also more weight on the beginning of store (intensity?) ?

Let's continue to study this effect

Is there additionnal information in this plot ?



Is ratio collisions between « satellites at ZV=0 (=symmetric satellites) / collisions between central satelllite and non central satellite interesting ?



Or the vertex width for symmetric satellites ?