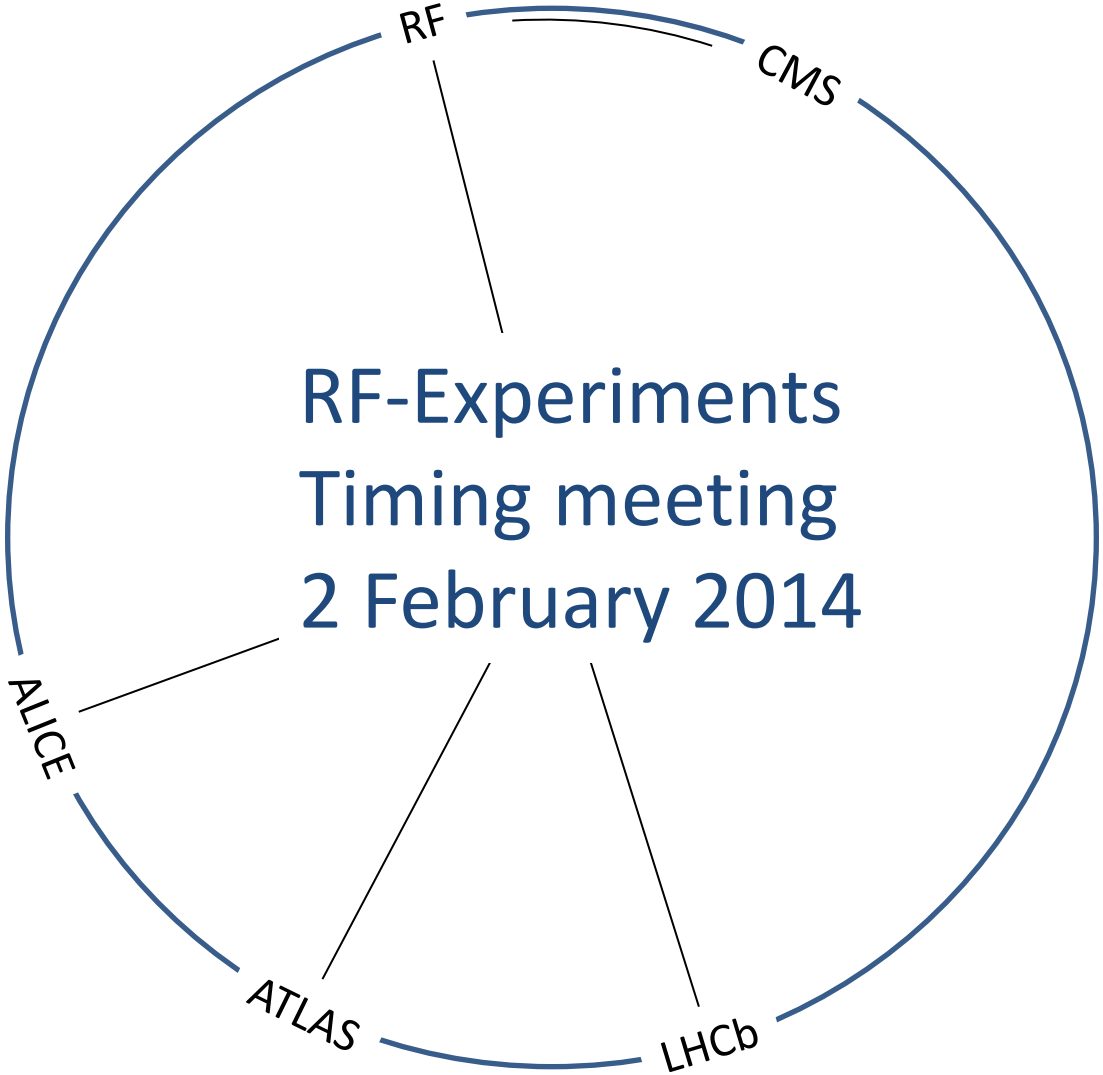
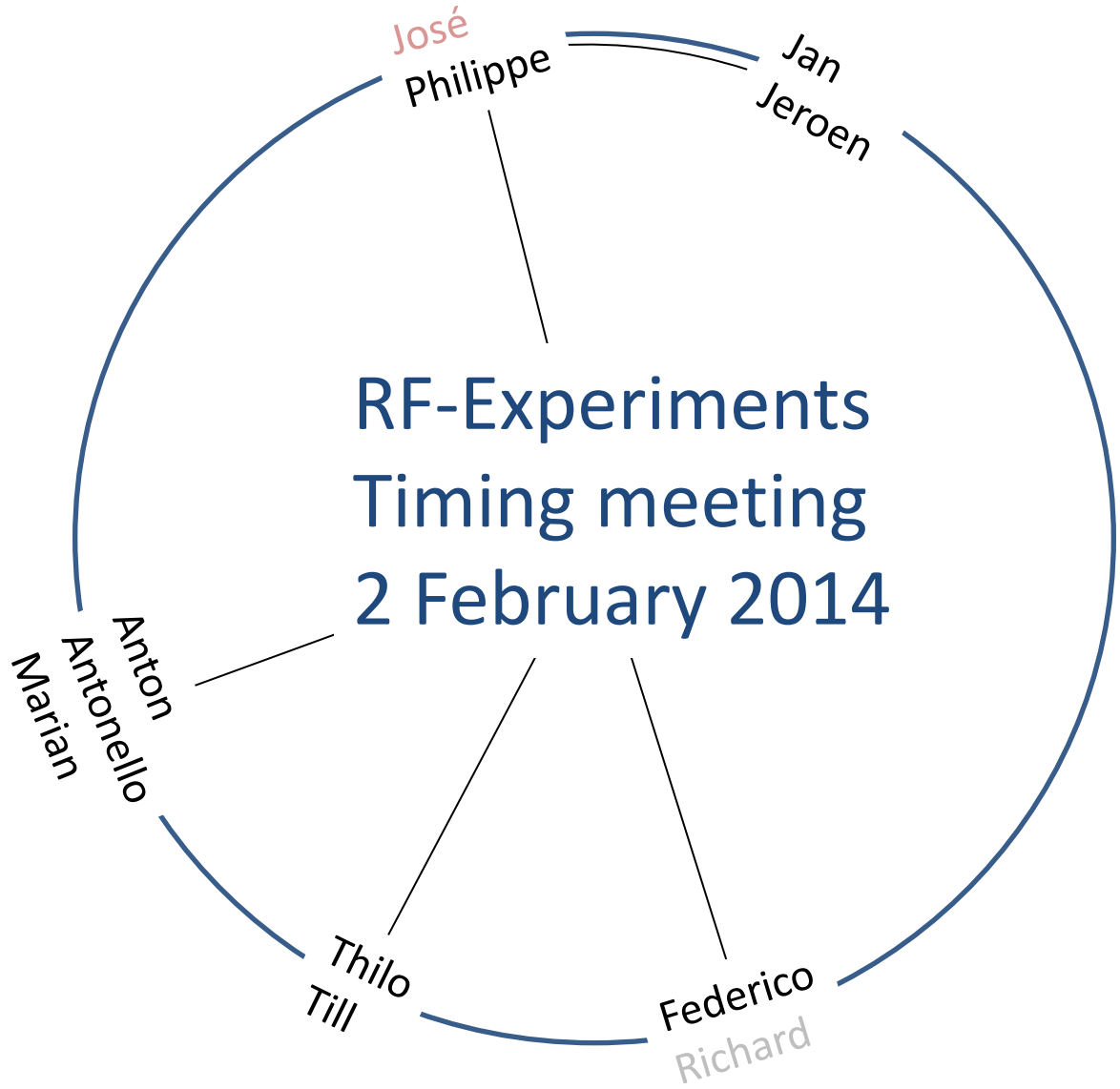
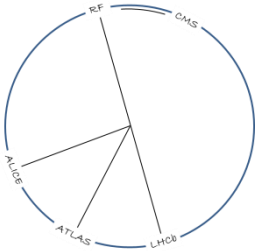



# RF-Experiments Timing meeting 2 February 2014


José
Philippe
Jan
Jeroen
RF-Experiments
Timing meeting
2 February 2014
Anton
Antonello
Marian
Thilo
Till
Federico
Richard

# Now where were we?




## Last meeting together (22.02.10)

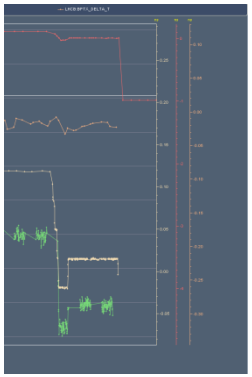
**BPTX publication on DIP and cogging**

chaired by Sophie Baron

Monday, 22 February 2010 from **15:00** to **16:00** (Europe/Zurich)
at **CERN ( CCC-LPC )**

Manage

**Description** Discussion on Massi and Sophie's proposal for BPTX publication over DIP, synchro modes and cogging for startup.



## Last headache (08.05.12 – DeltaT drop)

## Last document from Alick (08.03.11)

Number: **LHC-OP-ES-0024 v.1**
EDMS Id: **1134645 v.1**
**In Work**

**Data Exchange Between the Experiments and the LHC - Data Exchange for reporting Experimental conditions**
Alick MACPHERSON

PUBLIC

*Specification - Operation*
*2011-03-08*

## Last alignment tool (Config Vistar)

| | ATLAS | ALICE | CMS | LHCb |
|---|---|---|---|---|
| Wrong Bucket Flag: Beam1 | false | -- | -- | false |
| Wrong Bucket Flag: Beam2 | false | -- | -- | false |
| BPTX: deltaT of IP (B1-B2) | -0.02 ns | -- | 0.10 ns | 0.07 ns |
| Luminous size (x,y) in um | 101.9,106.4 | 1.0, 1.0 | 45.1,53.2 | 64.0,63.7 |
| Luminous size (z) in mm | 62.6 | 30.0 | 56.9 | 58.5 |
| Lumi Centroid (x,y) in um | -12.8,17.1 | 2.0, 2.0 | -996.5,156.4 | 560.0,-50.3 |
| Lumi Centroid (z) in mm | -4.8 | 10.0 | 3.6 | 10.9 |

## Last publication on the Cogging Blog (28.06.11)

June 28

**Rapid clock phase drift during Fill 1900**

by Federico Alessio on 28/06/2011 09:12 AM
Category: LHCb DeltaT

Dear All,

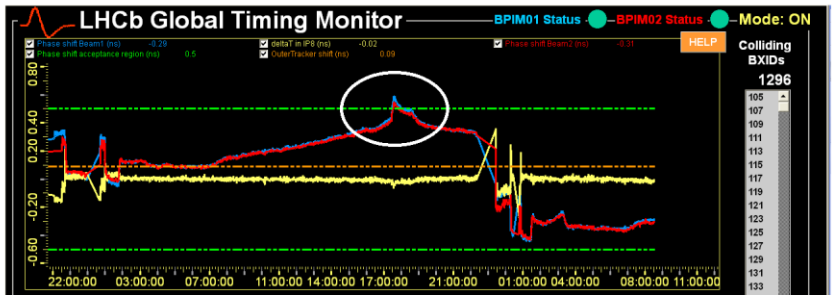
yesterday at around 6pm, we (LHCb) noticed that the phase of the clock (BC1) wrt to the passage of both beams changed very rapidly by about 100ps, to then start drifting back in the evening.

In attachment there is an easy screenshot of the panel we have in the control room, the big shift is highlighted in a white circle. You can see the full drift during the whole fill (between 7h and 21h, Fill 1900) in the top plot. Blue is BC1-beam1, red is BC1-beam2 and yellow is the deltaT. At the bottom the detected filling scheme and intensities.

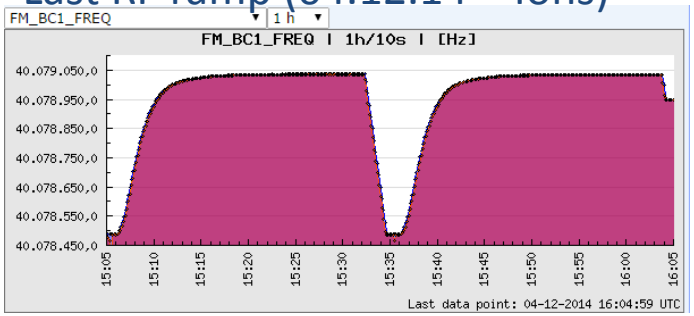
Since I could not get any other clue from any other instrument in LHCb, I would like to know if any of you saw something similar. I was investigating if the electronics could have done that, but BC1-beam1 and BC1-beam2 are measured with two completely independent electronics boards, the input comes from two different cables, the only commonality is the input clock... and no deltaT shift nor Z Luminous region shift was seen during the Fill. The VELO saw the beams colliding always at the same X, Y, Z during the shift.

I am investigating because this particula shift hit our limit of 0.5ns and therefore the fill after we shifted the clock back by 0.5ns, therefore any feedback you could provide us is very welcome.

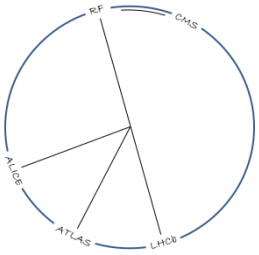
Thanks and cheers.
Federico




## Last RF ramp (04.12.14 – Ions)



# Agenda




- 14:05 - 14:15 Status & inventory of the RF/TTC backbone
- 14:15 - 14:25 Status of the BPTx systems
- 14:25 – 14:55 Cogging and Fine Phase Tuning
- 14:55- 15:25 New LHC Timing Vistar
- 15:25 – 15:40 AOB