

## Minutes of the HL-LHC WP2 Task 2.4

### 30<sup>th</sup> (VIDYO) meeting on Wednesday 14/10/2015 (11:00-12:30, 6-R-018)

**Task 2.4 members:** Alexey Burov (AB), Alessandro Drago (AD), Alessandro Gallo (AG), Andrea Mostacci (AM), Alessandro Vivoli (AV), Benoit Salvant (BS), Bruno Spataro (BrunoS), David Alesini (DA), Deepa Angal-kalinin (DAK), Elias Metral (EM), Elena Shaposhnikova (ES), Fabio Marcellini (FM), Fritz Caspers (FC), Frank Zimmermann (FZ), Gianluigi Arduini (GA), Giovanni Rumolo (GR), Hugo Alistair Day (HAD), John Jowett (JJ), Kevin Li (KL), Luigi Palumbo (LP), Mauro Migliorati (MM), Michel Martini (MM), Mikhail Zobov (MZ), Nicolas Mounet (NM), Nicolo Biancacci (NB), Oliver Boine-Frankenheim (OBF), Olga Zagorodnova (OZ), Oscar Frasciello (OF), Paul Goergen (PG), Rainer Wanzenberg (RW), Uwe Niedermayer (UN), Wolfgang Hofle (WH).

**Present/Excused:** AB, AD, AG, AM, AV, **BS**, BrunoS, DA, DAK, **EM**, ES, FM, FC, FZ, GA, GR, HAD, JJ, **KL**, LP, MM, MichelM, MZ, NM, **NB**, OBF, OZ, OF, PG, RW, UN, WH, **Na Wang**, **JuanEM**, **LeeC**.

#### 1) General information (EliasM):

- The HL-LHC parameters page is not in agreement with our HL-LHC operational scenario (comment I made at the last WP2 TL meeting) => Should be:

- r.m.s. energy spread (Gaussian fit) [10<sup>-4</sup>] = 1.08 (instead of 1.13).

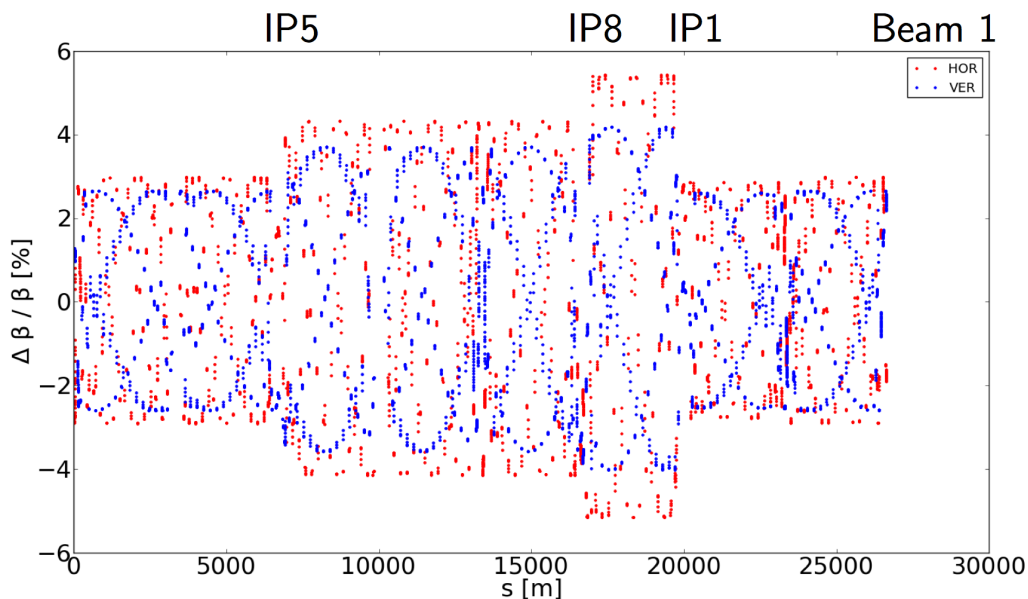
- r.m.s. bunch length (Gaussian fit)[cm] = 8.1 cm (instead of 7.55).

=> Table will be updated by RogelioT and discussed at the coming WP2 TL meeting.

- Nice analysis by TatianaP et al. for the LBOC talk of RogelioT on the difference in lumi between ATLAS and CMS:

# Beam-Beam effects (T. Pieloni)

From MADX with beam-beam,  $1.2 \times 10^{11}$  ppb,  $3 \mu\text{m}$ ,  $\sigma_s = 10 \text{cm}$ :



6% peak  $\beta$ -beating!

Example plot of the beta-beating induced by BB alone on the LHC 2015 operational configuration.

=> To be followed up for HL-LHC.

- Follow-up of last WP2 TL meeting:
  - Impedance of new triplets BPM: NicolòB is in contact with ThibautL: there are Fluka simulations (by F. Cerutti and his team) going on at the moment to validate the need of inermet absorbers in the BPM. The main difference between the two configurations would result in an interconnection slightly shorter for the circular version. At the moment the mechanical design of the circular BPM has no inermet absorbers inside. The design of the striplines is the same for both configurations. ThibautL et al. are waiting for the Fluka team recommendations to resume simulations.
- Agenda for today: discussion / rehearsal of talks for the LIU-HLLHC workshop of tomorrow.

## 2) Rehearsal of the talks for the coming LIU-HLLHC meeting on 15/10/15:

- Further impedance reduction in the injectors: What can it bring us? by BenoitS
- Lower or higher harmonic RF system in LHC? by JuanEM.
- Wide-band feedbacks by KevinL.

### **3) Next meeting**

- The next (31th) Task 2.4–2.7 VIDYO meeting, which will take place on a Wednesday from 11:00 to 12:30 in the room 6/R-018, will be announced in due time.

*Minutes by EliasM, 15/10/2015.*