

HL-LHC BB: 2012 activities

- People:

- T. Pieloni 40%, CERN (from May 2012)

Participation in LHC operation, BB MD studies and analysis data of instabilities. Study of possible leveling scenarios for the HL-LHC

- D. Banfi, EPFL@CERN from 1st Nov

DA studies, Sixtrack BB lense studies, JUAS school presently.

- **1 open position, EPFL@CERN...**

HL-LHC Noise studies

- Preparation/participation/analysis of LHC BB studies relevant for HL-LHC:

- Leveling techniques
- High pile-up MD
- Noise studies
- Instability studies
- Start of Sixtrack DA studies with R. de Maria

- Meetings and network:

- Participation to HL-LHC workshop Frascati: Possible leveling scenarios for HL-LHC + task 2.5 activities summary
- With A. Valishev help in organizing Task 2.5:
 - Webex meetings among Task 2.5 members
 - Exchange of info among collaborators
 - Logistics of visits

HL-LHC BB: 2013 studies

- D. Banfi, EPFL@CERN

DA studies, Sixtrack BB lense studies

- T. Pieloni 40%, CERN

DA studies HL-LHC parameter space, strong-strong effects, analysis of LHC data relevant for HL-LHC, modeling of luminosity

- 1 open position, EPFL@CERN

HL-LHC Noise studies in collaboration with RHIC and LBNL

Collaborators:

- J. Qiang, S. Parret LBNL

Noise studies (transverse damper and BB) and crab cavities

- B. Muratori, Daresbury

Sixtrack development BB 3D new algorithm studies

- S. White, BNL

BB and impedance studies + e-lense compensation studies

- S. Valishev, Tevatron

Luminosity modeling and benchmark of FMA to DA studies

LHeC BB studies

2012 Activities:

- BB studies for the ring-ring option
- LHeC workshop June 2012 & collaboration meeting
- CDR section 6.12 “Beam-beam effects in the LHeC”

2013 activities:

- Pp and ep collision: tune shift and noise effect