

Short feedback from ECFA workshop



ECFA High Luminosity LHC Experiments Workshop - 2016, <u>link</u> Monday - Thursday 3 - 6 October 2016, Aix-les-Bains

Here only reporting from Monday which had the general and machine related parts + some of my impressions (Gianluigi, Oliver .. please add)

Previous workshops:

ECFA High Luminosity LHC Experiments Workshop, 1-3 Oct. 2013, <u>link</u> ECFA High Luminosity LHC Experiments Workshop, 21 - 23 Oct. 2014, <u>link</u>

and to some extend:

Joint Machine-Experiments session on Thursday 29/10/2015 of our

5th Joint HiLumi LHC-LARP Annual Meeting



Monday morning session



- Welcome and introduction Didier Contardo + Kevin Einsweiler
- CERN's Scientific Strategy, Fabiola Gianotti, (mostly non LHC)
- The new-physics landscape of HL-LHC, Matthew Mccullough
- Accelerator Overview, Frederick Bordry
- ALICE upgrade status and outlook, Werner Riegler
- LHCb upgrade status and outlook, Chris Parkes
- ATLAS upgrade status and outlook, Brian Petersen
- CMS upgrade status and outlook, Meenakshi Narain



Monday afternoon



Accelerator and Experiment Interface Session (chaired by Oliver + me) Options for beam operation and luminous region

- Accelerator operation and luminous region scenarios, Gianluigi Arduini
- ATLAS performance, Brian Petersen
- CMS performance, Patrizia Azzi

Beam Background and beam failure

- Accelerator scenarios, Roderik Bruce
- Impact on ATLAS and CMS, Antonio Sbrizzi

LS2, LS3... Planning (convenors Ludovico Pontecorvo and Karl Aaron Gill)

- Accelerator, Laurent Tavian
- ALICE and LHCb, Eric Thomas
- ATLAS, Michel Raymond
- CMS, Wolfram Zeuner



Remarks



High-lumi machine LHC and very major detector upgrades --- a real project with impressive amount of detailed work on both sides

Very busy on all sides and already talking to each other in various meetings

+ still very useful to bring all together and discuss on a yearly basis

Good suggestions and difficult questions:

much interested in details of running schemes and options

hard (impossible ?) to get simple quantitative answer on impact of pile-up, density ..

even $\mu = 200$ not such a hard limit, but degrading performance for certain physics

interest in tests related to risks and damage level

pixel tests in HiRadMat - combined with Collimation tests?

What would be needed to completely exclude fast failure scenarios like asynchronous beamdump?