## **LHC Performance Workshop - Chamonix 2012**



Contribution ID: 46 Type: not specified

## RF upgrade program in LHC injectors and LHC machine

Wednesday 8 February 2012 19:00 (20 minutes)

The main themes of the presently on-going RF upgrade program are: the LLRF-upgrade for PSB and PS, the study of a tuning-free wide-band system for PSB, the upgrade of the SPS 800 MHz amplifiers and beam controls and the upgrade of the transverse dampers of the LHC. Whilst LHC Splice Consolidation is certainly the top priority for LS1, some necessary RF consolidation and upgrade is necessary to assure the LHC performance for the next 3-year run period. This includes 1) necessary maintenance and consolidation work that could not fit the shorter technical stops during the last years, 2) the upgrade of the SPS 200 MHz system from presently 4 to 6 cavities, which constitutes the present bottle neck for LHC beam current and possibly 3) the replacement of one LHC cavity. On the longer term, the LHC luminosity upgrade requires crab cavities, for which some preparatory work both in SPS Coldex and LHC point 4 must be scheduled during LS1.

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