Collimator Improvements 2011 and Upgrade 2012: What Do We Plan?

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The LHC collimation system has provided an outstanding performance during the first year of high-intensity beam operation. The complete Phase I system was commissioned and delivered routinely a cleaning performance close to the nominal exceptions with relaxed collimator settings. On the other hand, the first commissioning experience has also provided first indications of system limitations alongside of hints for possible improvements. In particular, the expected performance limitations from losses in the cold dispersion suppressors (DSs) at either side of the warm cleaning insertions have been confirmed. While improvements of the system will already be implemented during the 2010 shutdown, the major performance limitation from the DS require a change of the machine layout that will be addresses in the 2012 long shutdown. In this papers, the proposed improvements of the system are presented. The expected gains and the implication of the proposed changes on the system re-commissioning are discussed.

Presenter: Dr REDAELLI, Stefano (CERN)

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