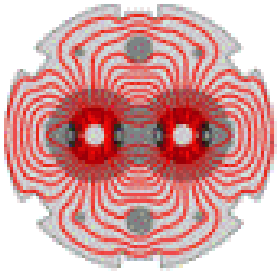

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Dipoles retraining for 7 TeV

Monday, 25 January 2010 19:20 (20 minutes)

We outline the present understanding of the retraining of the main dipoles in the LHC sector 5-6 during 2008 hardware commissioning. Even though part of the observed retraining can be explained through the test of individual magnets taken during the production, there is an additional unexplained detraining. 6.5 TeV seems clearly at hand with a very limited retraining. We present the best estimates of the training needed to reach the range 6.5-7 TeV, using different methods. We then analyse correlations between performance and production procedures and components: the present stage of analysis does not show any trace of correlations, but the analysis is not yet completed. There is also no indication of a correlation with the storage time. A program for performing additional test at SM18 on individual spare dipoles is discussed.
We then analyse the training needed for the other LHC magnets to reach 7 TeV. Options for speeding up the training of the dipoles are discussed. We finally present a proposal for a miniworkshop where the experience of other accelerators based on superconducting magnets is discussed.

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