

LHC phase 1 upgrade: news

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LHC repository

I changed the names to the orbit correctors to be compatible with the tools of Werner and Malika for the beam beam studies.

I discovered a little bug in the matching scripts. The Q6 limits was set to 200T/m instead of 160T/m. I re-matched all the three optics without particular problems.

There are still issues in the re-matching of IR3, IR6 when I change the arc quadrupoles. The solution I used is to increase the limits for the insertion quadrupoles.

I changed the position of D1 D2 to decrease the number of the LRBB collisions.

Tracking

The tool chain for the tracking studies is ready with some preliminary results.

I use the measured error tables generated by WISE (60 seeds) and the new error routine for the LHC.

I wrote new tables and a new routines for the new triplet using the scaling provide by Ezio where there are no systematic errors and the random ones are scaled.

A mask file for collision and injection is ready for all the options.

A first results shows an uncorrected DA in collision of 17 sigma for the lowbetamax option. The results need to be checked.

Chromaticity and beta beating

