Improving b3 model in the first part of the ramp

(performed on the night between 15th and 16th Sep 2018)

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Motivation

- Sign and dimension of ramp Q’ corrections clearly indicate a **b3 error**
- “Cleaning” was done during LS1, updating the b3 model (increase of about **1 unit** in the first part of the ramp)
- Situation can be **further improved**
- Beyond magnetic cleanliness, acceleration may become an issue, especially with full telescopic ATS optics

Current in the first 60 sec of the ramp for RSD2.A12B2 (before and after b3 cleaning)
A few problems of sign on the modified b3 functions were found.

The first ramp already showed a very stable chromaticity throughout the whole process.

Manual feed-forward to clean the correction done in the ramp-down.

Flat Q' at 10 units throughout the second ramp.

Established starting point for Run3.

b3 systematic were inserted in the functions (removed from the lattice sextupole corrections)

OLD model
NEW model