

Optimising spectrometers operation

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Abstract

It is well known that the spectrometer dipoles of ALICE and LHCb have a considerably larger and more challenging impact on the LHC beams than other magnets in the high luminosity regions.

The presentation summarises the basic layout of these devices, including the compensation of their fields and shows the theoretically expected beam orbits, envelopes and aperture needs. In addition the experience on beam will be presented for standard operation but mainly in case of polarity flips, and possible scenarios for future operation in the context of faster and more transparent operation will be discussed. The special problem of 25ns operation together with the so-called negative LHCb polarity will be addressed as well as the latest results from aperture measurements to decide on possible vertical crossing angle operation in IP8 at injection energy.