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Improvement of the LHC orbit feedback testing framework

Thursday, 23 May 2024 16:00 (2 hours)

During the Long Shutdown 2 (LS2 2019-2021) of the LHC, the orbit feedback correction software (OFB) of the LHC was redesigned to satisfy new requirements for LHC Run 3 (2022-2025) and to clean up legacy functionalities. The OFB is an essential component of LHC high intensity operation since the orbit must be stabilized to a fraction of the beam size during the entire LHC machine cycle. Redesigning such an essential and complex system during shutdowns requires thorough testing of the system functionality. The existing OFB testing system has been reviewed and improved based on the experience of LHC Run 2. An automatic, continuous integration tool has been put in place to validate future software developments before putting them in production. The solution for the OFB testing will be presented in this contribution.

Footnotes

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