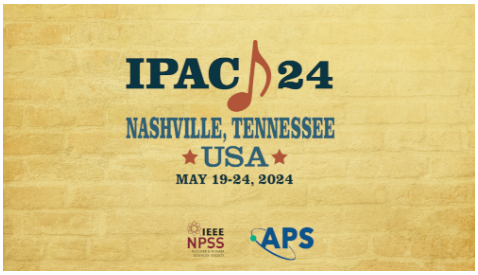

Contribution ID: **2169** Contribution code: **SUPC005** Type: **Poster Presentation**

LHC ion commissioning

Sunday, 19 May 2024 16:00 (2 hours)

In 2023, about 2 months of the LHC operation were devoted to the Heavy Ions physics, after more than 5 years since the last ion run. In this paper, the results of the 2023 Ion optics commissioning are reported. Local corrections in Interaction Point (IP) 1 and 5 were reused from the regular proton commissioning, but the optics measurement showed the need for new local corrections in IP2. We observed that an energy trim of the level of 10e-4 helped to reduce the optics errors at top energy. The dedicated measurements during the energy ramp revealed a larger than expected beta-beat, which is consistent with an energy mismatch. Furthermore, global corrections were performed to reach a β-beating of about 5% for the collision optics.

Footnotes

Funding Agency

Paper preparation format

LaTeX

Region represented

Europe

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Session Classification: Student Poster Session

Track Classification: MC1: Colliders and other Particle and Nuclear and Physics Accelerators: MC1.A01 Hadron Colliders