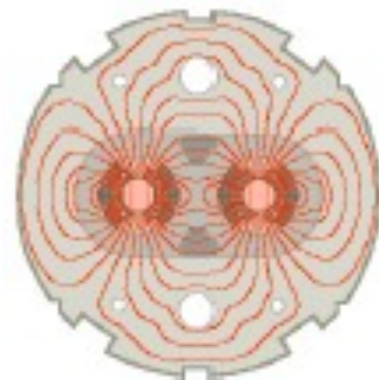


*LHC Study Working Group
CERN, Geneva, Switzerland
May 29th, 2012*

MD on β^* levelling

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Goal and procedure for initial tests



Overall goal of first MD:

Achieve a principle feasibility of levelling the luminosity with β^* .

In other words: Can we squeeze with the beam in collisions?

Does the luminosity vs time vary as expected?

Beam requirements:

2-3 nominal bunches with high intensity, all colliding in IR1/5 only.

MP constrains:

Nothing special (almost like during standard squeeze commissioning).

Collimators in IR3/7 with standard ramp functions, ending up at tight settings.

Manual movements of the TCTs.

Request to experiments:

Reliable luminosity signals.

Beta-star range:

3.0 m \rightarrow 0.6 m

Procedure:

- Standard squeeze down to 3m. Standard crossing schemes
- Manually establish collisions in IR1/5, leave separation on in other IPs.
- Start squeeze in steps with beam colliding, monitor L vs time and orbit at the TCTs.
- Re-adjust the collision point at every stop point

Outlook:

Repeat that with bunch trains with a configuration suitable for seeing long-range effects.