Contact person

frank.zimmermann@cern.ch

Subject of the MD (no carriage return, please)

Compensation studies with the SPS wires.

Date of the MD (no carriage return, please)

7 July 2009

Did you have the required machine/beam conditions for your MD? (no carriage return, please)

Yes.

What were the problems encountered? (no carriage return, please)

We had problem in inverting powering the BBLR5177M. After the request of SPS OP the electronic card of the power supply was changed and the problem was solved. We had problems in measuring the emittance (solved by Ana Guerrero).

Current results (no carriage return, please)

We performed a compensation scanning the vertical tune. The results show a compensation efficiency smaller than expected (and observed in 2008 MD).

Next steps (no carriage return, please)

We will dedicate part of the 8 July 2009 MD to try to reproduce this result.

New requirements (no carriage return, please)

None for imminent 2009 MDs. After the results of the data post-processing and the next MDs we will formulate a new request.

Contact person

guido.sterbini@cern.ch

Subject of the MD (no carriage return, please)

Compensation and excitation with the SPS wires.

Date of the MD (no carriage return, please)

8 July 2009

Did you have the required machine/beam conditions for your MD? (no carriage return, please)

Yes, a part from some difficulties to obtain the required emittance. We got it with the help of E. Metral who set up an emittance blow up using the transversal damper.

What were the problems encountered? (no carriage return, please)

We had problem in inverting the polarity of the BBLR5177M that was not solve during the MD. The emittance blow up took some time and we could not perform the excitation studies.

Current results (no carriage return, please)

We performed a new compensation scanning the vertical tune. The results show a compensation efficiency smaller than expected (and observed in 2008 MDs).

Next steps (no carriage return, please)

A complete post-processing and analysis of the results of the compensation.

New requirements (no carriage return, please)

None for imminent 2009 MDs. After the results of the data post-processing and the next MDs we will formulate, if necessary, new requests.

Contact person

guido.sterbini@cern.ch

Subject of the MD (no carriage return, please)

Excitation with the SPS wires.

Date of the MD (no carriage return, please)

9 July 2009

Did you have the required machine/beam conditions for your MD? (no carriage return, please)

Yes.

What were the problems encountered? (no carriage return, please)

No specific problems.

Current results (no carriage return, please)

We performed excitation studies: a distance scan at 200 A (equivalent, for the measured SPS emittance, to12 LHC parasitic encounters at the ultimate distance). We performed a current scan at a separation 5 and 7 sigma. We observe that the time costant of the losses is much larger that the observed time (~5 s). The blow up of the emittance worked well.

Next steps (no carriage return, please)

A complete post-processing and analysis of the results of the excitation.

New requirements (no carriage return, please)

None for imminent 2009 MDs. After the results of the data post-processing and the next MDs we will formulate, if necessary, new requests.

Contact person

guido.sterbini@cern.ch

Subject of the MD (no carriage return, please)

Excitation with the SPS wires.

Date of the MD (no carriage return, please)

13 July 2009

Did you have the required machine/beam conditions for your MD? (no carriage return, please)

Yes apart the emittance (we had 2 um rad instead of the required 3 um rad).

What were the problems encountered? (no carriage return, please)

We started with a delay 1.5 h (our cycle was not available). The vertical damper was not working properly so we could not increase the beam emittance. The PSB had a lot of problem so we had many MD cycle without current. In YASP we performed a pi+3pi bump: even if the bumps were activated on the flattop, we had large losses during the ramp (were the orbit corrector too started to ramp). We tried to solve that problem via the Trim Editor (shifting of 800ms the ramp of the orbit corrector) but this generated inconsistencies with YASP and we had to relauch it.

Current results (no carriage return, please)

We tried to perform a current scan at 7 sigma but we managed to measure only at 250, 200 and 150 A.

Next steps (no carriage return, please)

A complete post-processing and analysis of the results of the excitation.

New requirements (no carriage return, please)

None for imminent 2009 MDs. After the results of the data post-processing and the next MDs we will formulate, if necessary, new requests.