0.1 MD2 - 55GeV, 2007-08-27/28

0.1.1 General

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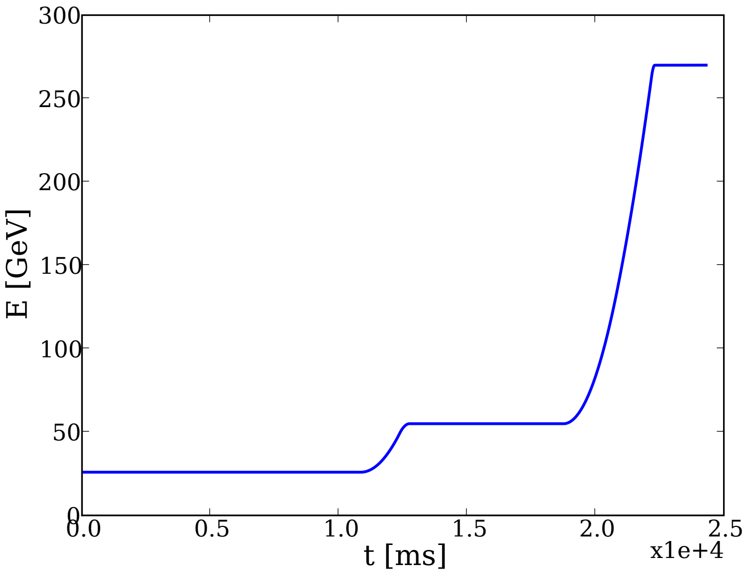
Variable	Value
# bunches	1
p per bunch	5e10
Chromaticity (x & y)	0.05
Bunch length (4 sigma)	4 ns
$V_{RF,gap}$	4 MV at 55 GeV
ϵ_x at 55 GeV/c (SC 51317)	1.7 μm
ϵ_y at 55 GeV/c (SC 51317)	1.9 μm
Q_x, Q_y	≈ 0.3070, ≈ 0.2783

- data saved to

  `/user/slops/data/2007/MD_DATA/SPS_BBLR_27_Aug07`

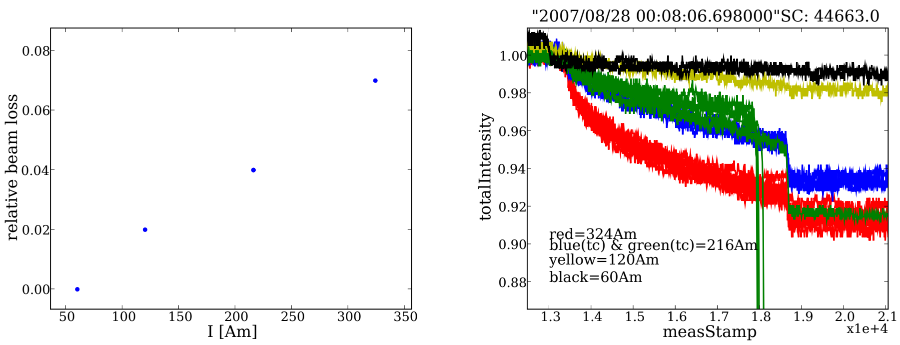
- supercycle name:

  `LHCMD25.92-55-270_PDOT_V2`



- The MD had 2 serious drawbacks: 1) The BBLR were not initialized for this supercycle in the controll software, which caused a delay of more than 1 hour. 2) Strange beam losses every now and then. Possible due to timing issues between energy ramping and BBLR ramping.

0.1.2 Current scan at 6.6 σ

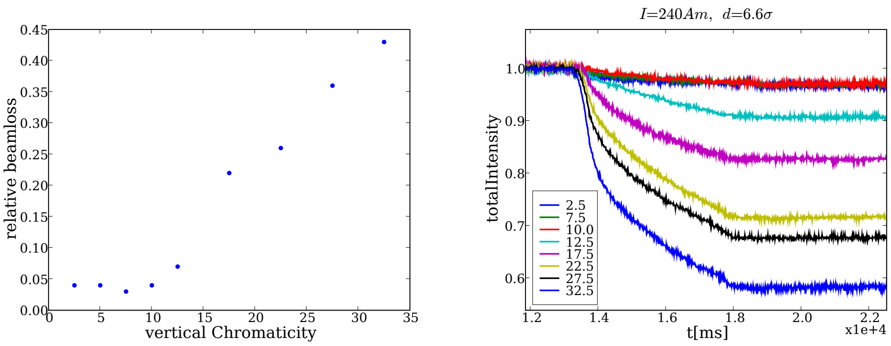


(a) The average over the different datasets for each setting

(b) the BCT data

Figure 1: Currentscan at $d = 6.6\sigma$

0.1.3 Y-Chromaticity scan at 240Am

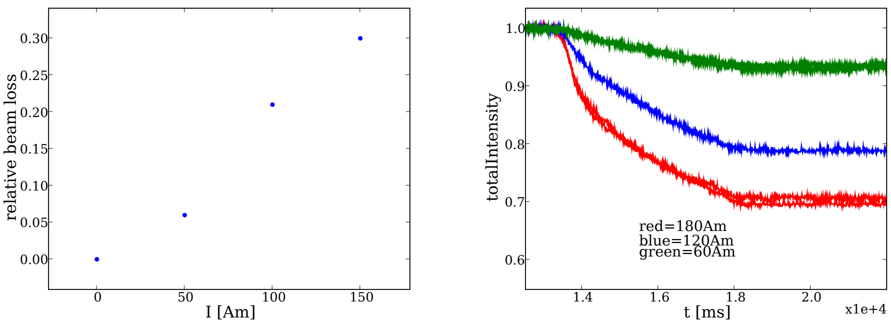


(a) The average over the different datasets for each setting

(b) the BCT data

Figure 2: Y-chromaticity scan at $d = 6.6\sigma$ at 240Am

0.1.4 Currentscan with $Q'_y = 33$

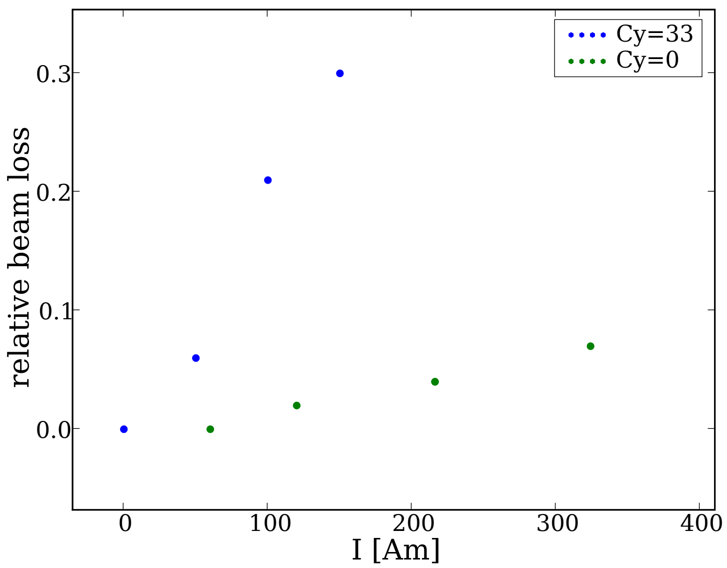


(a) The average over the different datasets for each setting

(b) the BCT data

Figure 3: Currentscan with $Q'_y = 33'$ at $d = 6.6\sigma$

0.1.5 Comparissons


Cy=33
Cy=0
0.3
0.2
0.1
0.0
relative beam loss
0
100
200
300
400
I [Am]