

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

### 0.1.1 General

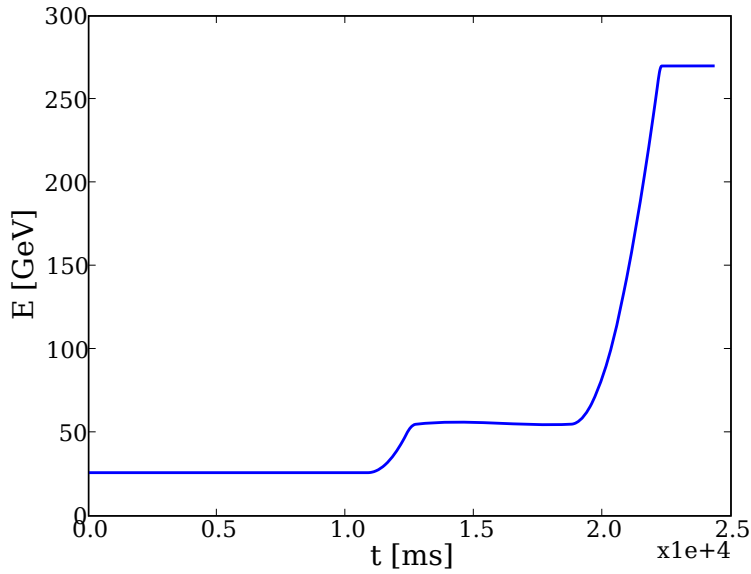
Variable	Value
# bunches	1
p per bunch	5e10
Chromaticity (x & y)	0.05
• Bunch length (4 sigma)	4 ns
$V_{RF,gap}$	4 MV at 55 GeV
$\epsilon_x$ at 55 GeV/c (SC 51317)	1.7 $\mu m$
$\epsilon_y$ at 55 GeV/c (SC 51317)	1.9 $\mu m$
$Q_x, Q_y$	$\approx 0.3070, \approx 0.2783$

- data saved to

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

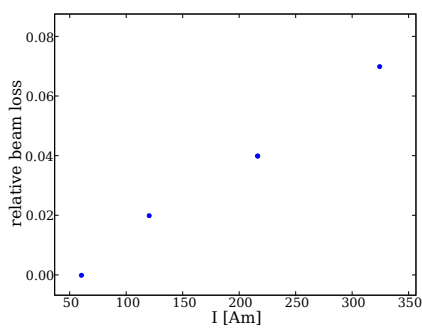
- supercycle name:

`LHCMD25.92-55-270_PDOT_V2`

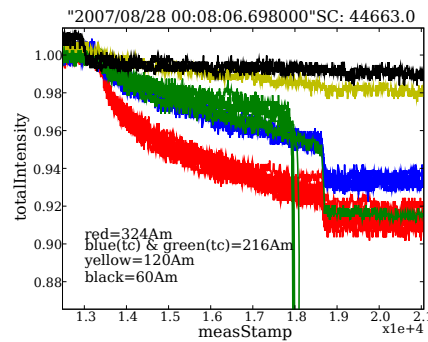


- The MD had 2 serious drawbacks: 1) The BBLR were not initialized for this supercycle in the control software, which caused a delay of more than 1 hour. 2) Strange beam losses every now and then. Possible due to timing issues between energy ramping and BBLR ramping.

### 0.1.2 Current scan at $6.6 \sigma$



(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

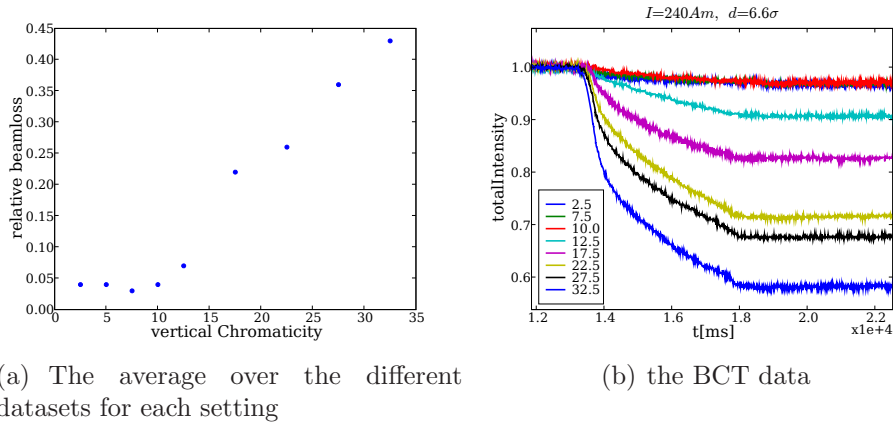


Figure 2: Y-chromaticity scan at  $d = 6.6\sigma$  at 240Am

### 0.1.4 Currentscan with $Q'_y = 33$

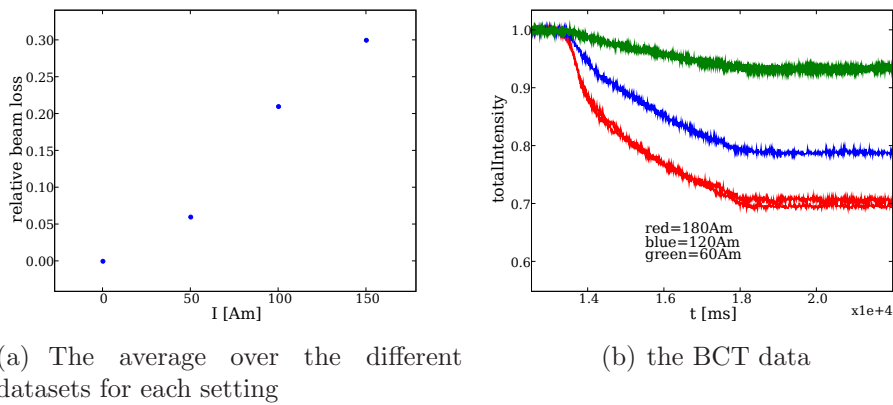


Figure 3: Currentscan with  $Q'_y = 33'$  at  $d = 6.6\sigma$

### 0.1.5 Comparissons

