

2002 Feb. 12 2バッチビーム調整 (紙谷・大西)

① Gun 1バッチ Sec 011010 - 2 bunch

(1バッチ delay FB 1450Z 絞こ)

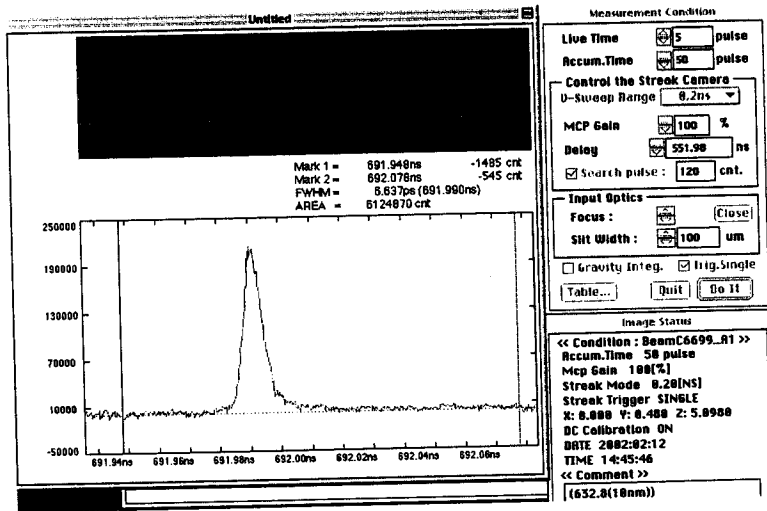
注入電圧 1	Φ5AΦ	DAC 0.41kV	ADC 0.35kV
" 2	Φ830	0.41kV	0.41kV
Delay 1	Φ82Φ	ADC 0.76ns	DAC 1.57ns
" 2	ΦAΦ6	1.20ns	2.10ns

② ~~ストリークカメラ~~

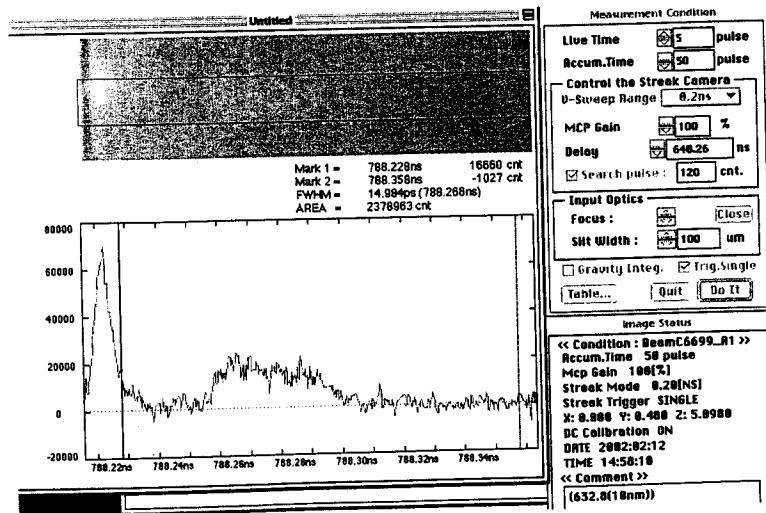
② ストリークカメラのビーム確認

0.2ns delay = 551.98 1st bunch (F)

9622  
648.020



delay = 648.26 2nd bunch (F)



③ 1st Bunch Charge が同じに存するに 1st 電圧を調整

調整前 電荷量 1 11.865 nC → 11.885  
 2 12.369 nC → 11.844

(1st 電圧 2  $\phi 830 \rightarrow \phi 740$  DAC 0.41KV ADX 0.39KV)

④ Gun delay 2 調整 Energy  $\epsilon$  調整

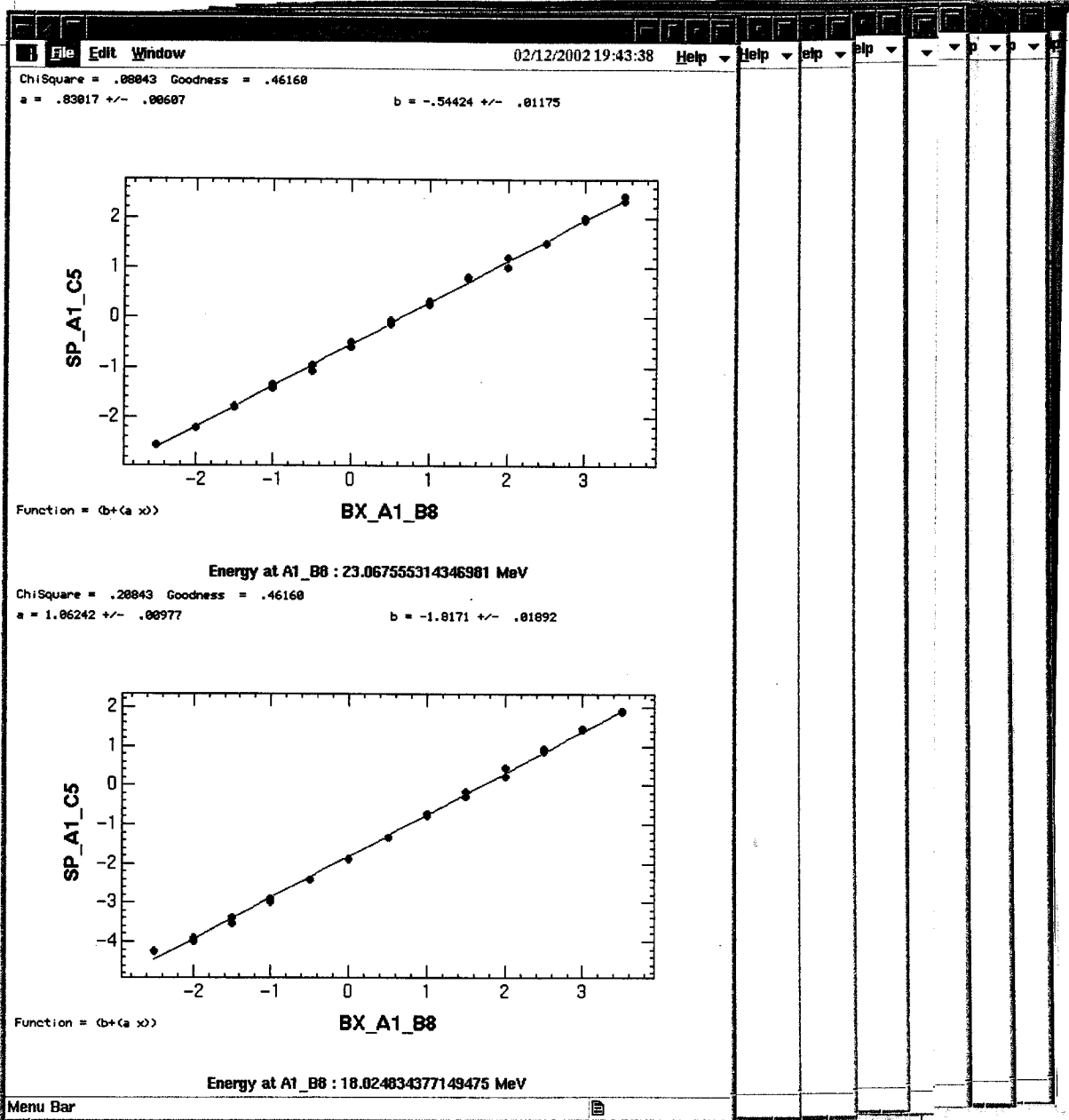
23.11 17.84

Gun Delay 2	DAC	DAC	E1	E2
$\phi A \phi 6$	1.20	2.10	23.11	17.84
$\phi AA6$	1.16	2.06	23.63	18.00
$\phi AA6$			23.65	17.90
$\phi 900$	<del>0.57</del>	1.74	23.54	19.29
$\phi 800$	0.74	1.55	23.45	19.97
$\phi 600$	0.53	1.16	24.17	21.32
$\phi A00$	1.04	1.94	23.82	18.02
$\phi C00$	1.48	2.33	23.24	20.56
$\phi E00$	2.16	2.78	23.35	23.62

Beam Above  
 15:32  
 調整状態に戻す

Energy は小さくなるが、  
 Buncher 出口での  
 charge 量の差が  
 大きいので X

2nd Bunch Charge 量  
 低い



⑤ Gun delay  $Q_1, Q_2, x_1, x_2, \dots$

$\phi C \phi \phi \quad z' \quad Q_1 \equiv Q_2$

$\phi B \phi \phi$

$\phi A \phi \phi \quad z' \quad Q_2 \text{ は } \phi \text{ の } \phi \text{ の } \phi$

→ この一番 orbica 一致の

$E_1 = 23.07, \quad E_2 = 18.02$

⑥  $E_1 = E_2$  は合致も存在!!

→ R.L. :  $P_{\text{res}}$  等 調整の余地あり?

⑥ SLED timing.

93319

Trigger Delays				19:46 v1.3.0					
Toggle AB-sled	Toggle C1-sled	Toggle 25-sled	Toggle Monitor						
	Reference	Current	Difference						
	Feb12 19:06:33	Feb12 19:46:25							
┆ KL_A1_RF	93319 ns	<del>83319 ns</del> 93356 ③ 37							
┆ OVERALL_A	49032 ns	49111 ns	79						
┆ OVERALL_B	49032 ns	49076 ns	44						
┆ OVERALL_C	50835 ns	50923 ns	88						
┆ OVERALL_1	72854 ns	72941 ns	87						
┆ OVERALL_2	72773 ns	72778 ns	5						
┆ OVERALL_3	72672 ns	72731 ns	59						
┆ OVERALL_4	72803 ns	72862 ns	59						
┆ OVERALL_5	72929 ns	72966 ns	37						
Read Ref.	Read Cur.	-96.3	-17.5	-8.8	-1.75	+1.75	+8.8	+17.5	+96.3

d038  
↓  
d04D

⑦ A1-RF timing (D-カムのTD4を調整して)

HEX: d038 → d04d に対応

2nd Bunch A2以降通過

J-circ部はOK

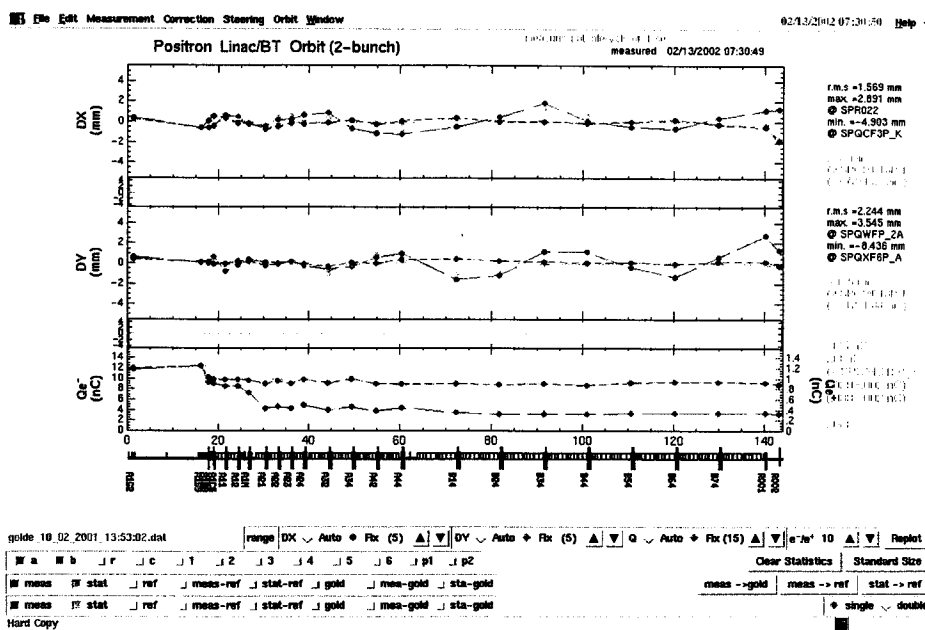
2002.2.13  
(水)

7:25

2/13 午後 2: Dump Mode 2 gate open

調整 trigger  
(et) gun  
magnet

KEKB  
All timing is ~~変更~~ ← 入射が速くなる調整



8:00

KEKB入射終了後 2/13 午後調整  
FB 調整

調整 trigger  
gun  
magnet

All timing

8:15

SLED timing unity

手配はどの

Overall A 49111 (79)  
 Overall B 49076 (49)

手配

Trigger Delays			
File	Trigger Delays		08:16 v1
	Toggle AB-sled	Toggle C1-sled	Toggle 25-sled
		Reference	Current
		Feb12 19:06:33	Feb13 08:16:04
		Difference	Difference
<input type="checkbox"/>	KL_A1_RF	93319 ns	93356 ns
<input checked="" type="checkbox"/>	OVERALL_A	49032 ns	49111 ns
<input type="checkbox"/>	OVERALL_B	49032 ns	49076 ns
<input type="checkbox"/>	OVERALL_C	50835 ns	50923 ns
<input type="checkbox"/>	OVERALL_1	72854 ns	72941 ns
<input type="checkbox"/>	OVERALL_2	72773 ns	72778 ns
<input type="checkbox"/>	OVERALL_3	72672 ns	72731 ns
<input type="checkbox"/>	OVERALL_4	72803 ns	72862 ns
<input type="checkbox"/>	OVERALL_5	72929 ns	72966 ns

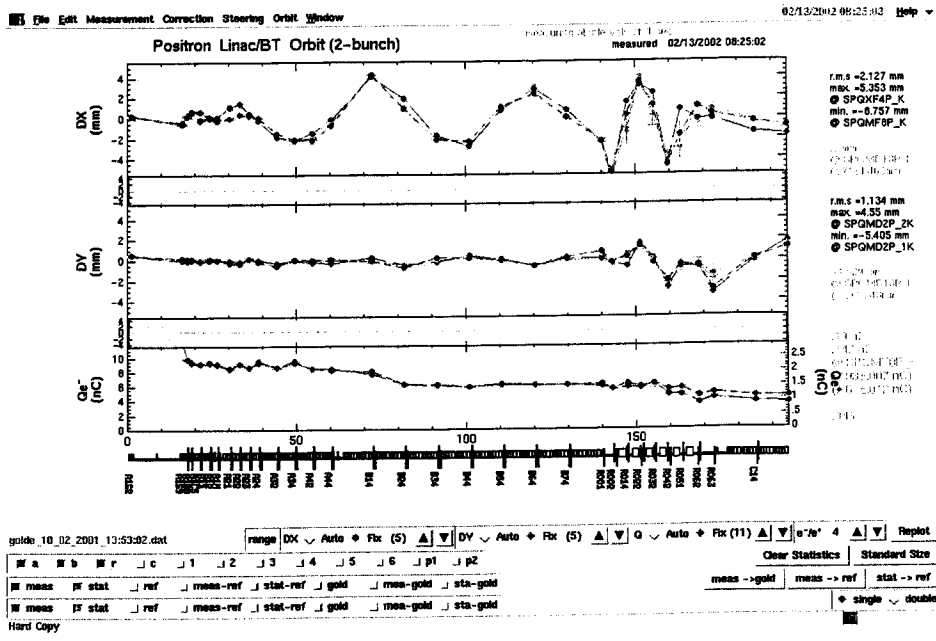
BX-ALM -0.053A → 0.145A curbit β-oscil なる  
 Overall A (Δ=96ns) 49128ns → 22% 増は

49111 (Δ=79ms) 2% かわる

BX-BL1 -2.300A

(8240 電 a data iz save IL2 なる)

手配は KL-A1 timing remote v 変更  
 するほうに 2 かわる

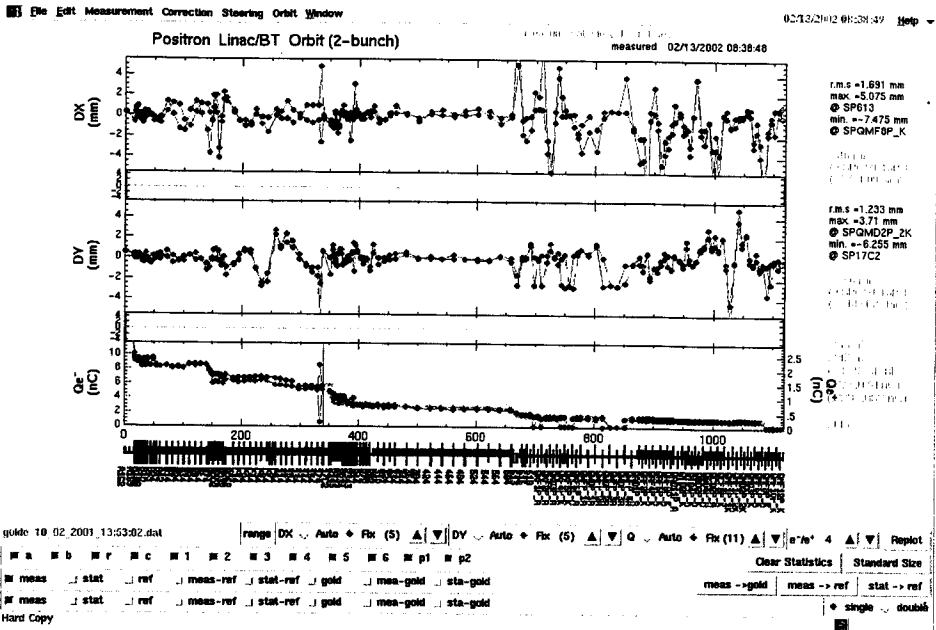


File 08:38 v1.3.0

Trigger Delays

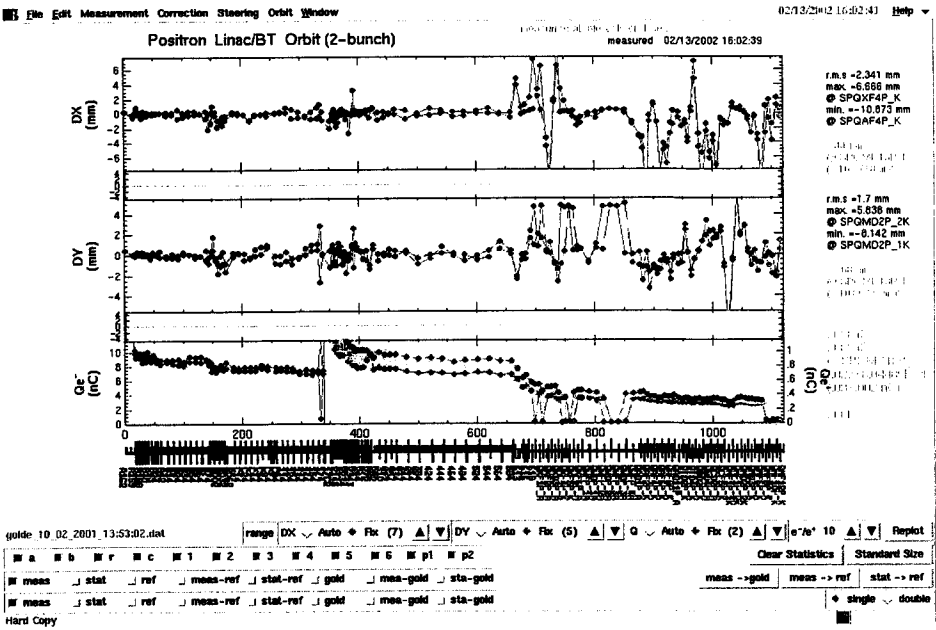
	Toggle AB-sled	Toggle CI-sled	Toggle Z5-sled	Toggle Monitor
	Reference	Current	Difference	
	Feb12 19:06:33	Feb13 08:38:17		
<input type="checkbox"/>	KL_A1_RF	93319 ns	93356 ns	37
<input type="checkbox"/>	OVERALL_A	49032 ns	49111 ns	79
<input checked="" type="checkbox"/>	OVERALL_B	49032 ns	49084 ns	52
<input type="checkbox"/>	OVERALL_C	50835 ns	50923 ns	88
<input type="checkbox"/>	OVERALL_1	72654 ns	72941 ns	87
<input type="checkbox"/>	OVERALL_2	72773 ns	72778 ns	5
<input type="checkbox"/>	OVERALL_3	72672 ns	72731 ns	59
<input type="checkbox"/>	OVERALL_4	72803 ns	72862 ns	59
<input type="checkbox"/>	OVERALL_5	72929 ns	72966 ns	37

Read Ref.	Read Cur.	-96.3	-17.5	-8.8	-1.75	+1.75	+8.8	+17.5	+96.3
-----------	-----------	-------	-------	------	-------	-------	------	-------	-------



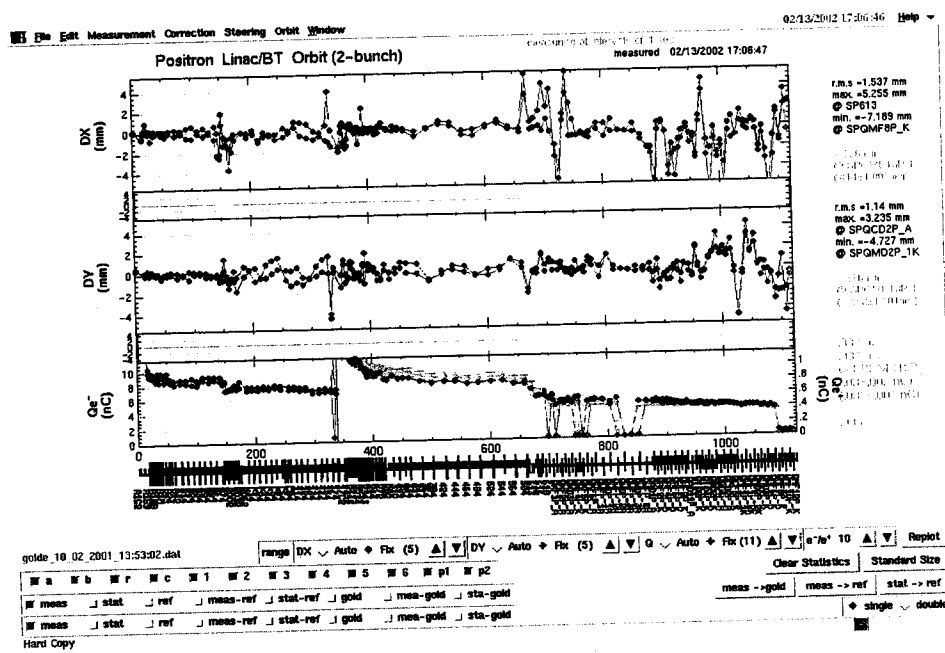
15:09

二の行再南





A, B, C, 1 orbit corrector (average - position)



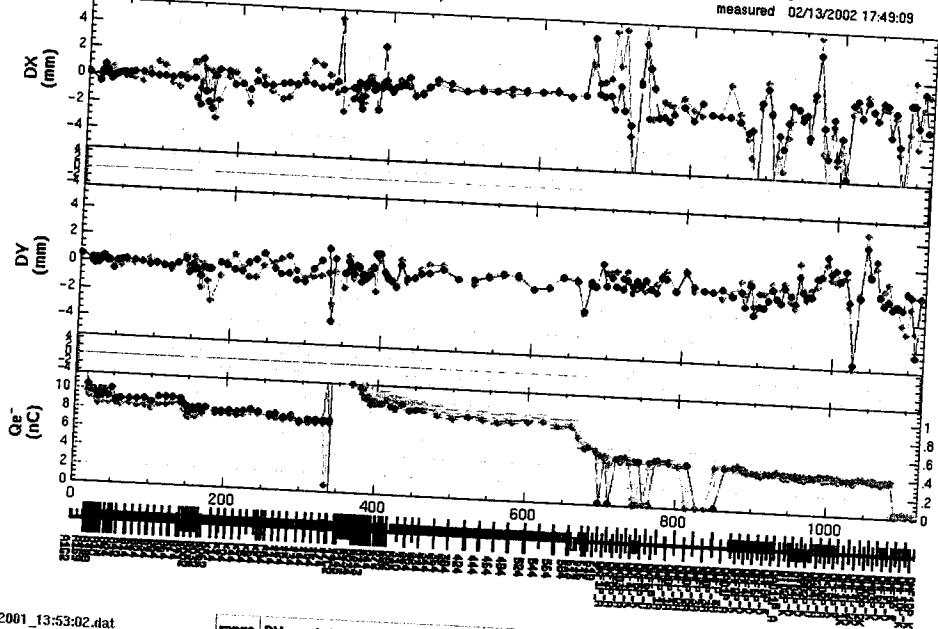
} magnet data1244.all good  
 } trigger data1519-delay. good  
 Gun 020212.2bunch.2

	delay 14:31 02/12/02	17:09 02/13/02	difference
OVERALL_A	49014	49111	97
KL A1 RF	93319	93356	37
OVERALL_B	49032	49076	44
OVERALL_C	50835	50861	26
OVERALL_1	72854	72880	26
OVERALL_2	72773	72805	32
OVERALL_3	72672	72705	33
OVERALL_4	72803	72836	33
OVERALL_5	72929	72966	37

Positron Linac/BT Orbit (2-bunch)

measuring at intervals of 1 sec

02/13/2002 17:49:09 Help



r.m.s = 1.749 mm  
 max = 5.908 mm  
 @ SP17C2  
 min. = -7.436 mm  
 @ SPGAF4P\_K

- 501 mm  
 @ SFQMD13P\_L  
 (382 ± 119 mm)

r.m.s = .996 mm  
 max = 3.537 mm  
 @ SPQMD2P\_2K  
 min. = -5.158 mm  
 @ SPQMD2P\_1K

- 800 mm  
 @ SFQMD13P\_L  
 (144 ± 63 mm)

.876 nC  
 .871 nC  
 @ SPQMF8P\_H  
 (.867 ± .002 nC)  
 (.860 ± .012 nC)

.048

golde\_10\_02\_2001\_13:53:02.dat

range DX Auto Fbx (5) DY Auto Fbx (5) Q Auto Fbx (11) e<sup>-7e+10</sup> Replot

meas stat ref meas-ref stat-ref gold meas-gold sta-gold

meas stat ref meas-ref stat-ref gold meas-gold sta-gold

Main Application Area

Clear Statistics Standard Size

meas -> gold meas -> ref stat -> ref

single double