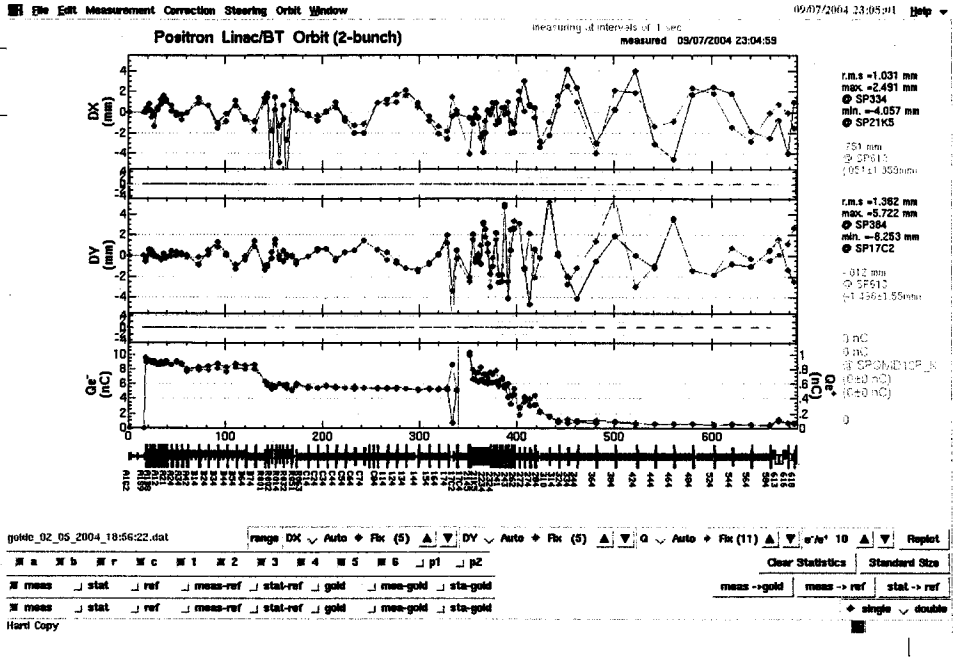
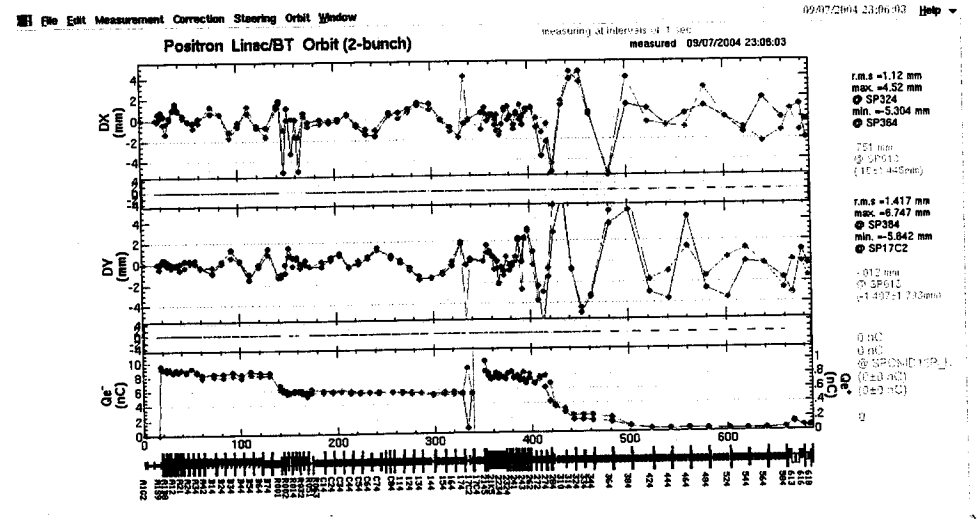
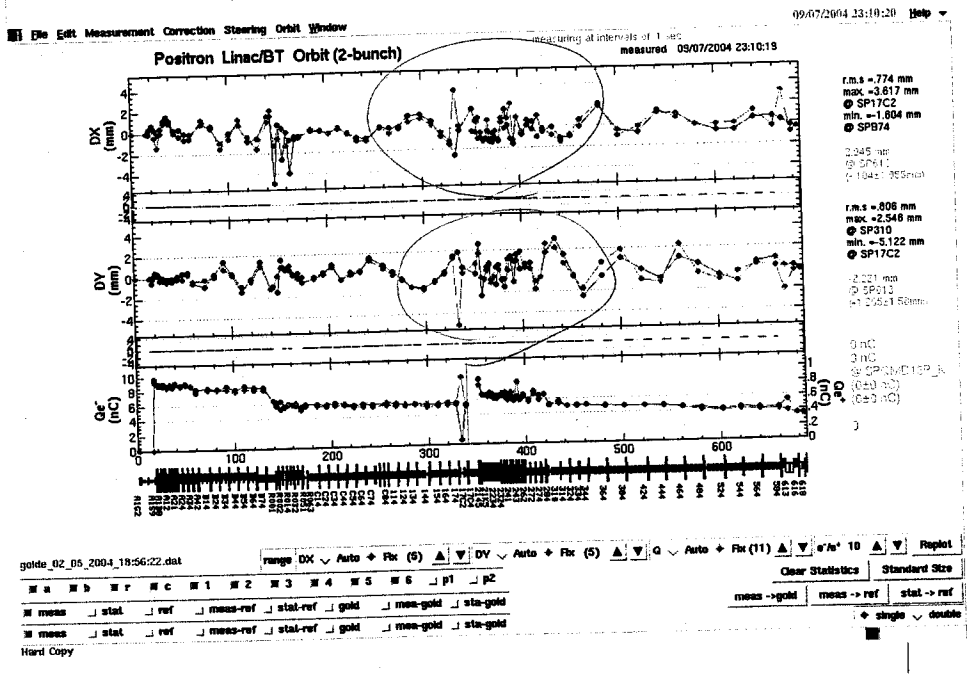
141

2

全20


File Edit Measurement Correction Steering Orbit Window
09/07/2004 23:05:01 Help
Positron Linac/BT Orbit (2-bunch)
measured 09/07/2004 23:04:59
DX (mm)
DY (mm)
Qe⁻ (nC)
r.m.s =1.031 mm
max. =2.491 mm
@ SP33A
min. =-4.057 mm
@ SP21K5
r.m.s =1.362 mm
max. =5.722 mm
@ SP38A
min. =-8.283 mm
@ SP17C2
golde_02_05_2004_18:56:22.dat
Clear Statistics
Standard Size
meas ->gold
meas -> ref
stat -> ref
Hard Copy


File Edit Measurement Correction Steering Orbit Window
09/07/2004 23:06:03 Help
Positron Linac/BT Orbit (2-bunch)
measured 09/07/2004 23:06:03
DX (mm)
DY (mm)
Qe⁻ (nC)
r.m.s =1.12 mm
max. =4.52 mm
@ SP32A
min. =-5.304 mm
@ SP38A
r.m.s =1.417 mm
max. =6.747 mm
@ SP38A
min. =-5.842 mm
@ SP17C2
golde_02_05_2004_18:56:22.dat


File Edit Measurement Correction Steering Orbit Window
09/07/2004 23:10:20 Help
Positron Linac/BT Orbit (2-bunch)
measured 09/07/2004 23:10:19
DX (mm)
DY (mm)
Qe⁻ (nC)
r.m.s =.774 mm
max. =3.617 mm
@ SP17C2
min. =-1.804 mm
@ SPB74
r.m.s =.806 mm
max. =2.548 mm
@ SP31A
min. =-5.122 mm
@ SP17C2
golde_02_05_2004_18:56:22.dat
Clear Statistics
Standard Size
meas ->gold
meas -> ref
stat -> ref
Hard Copy

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(STD)

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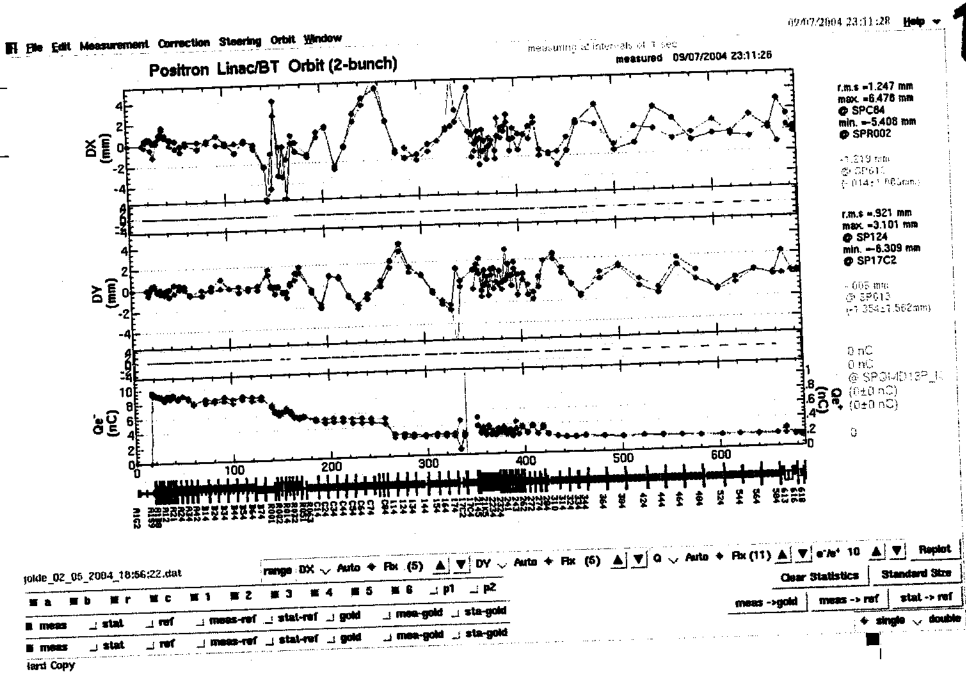
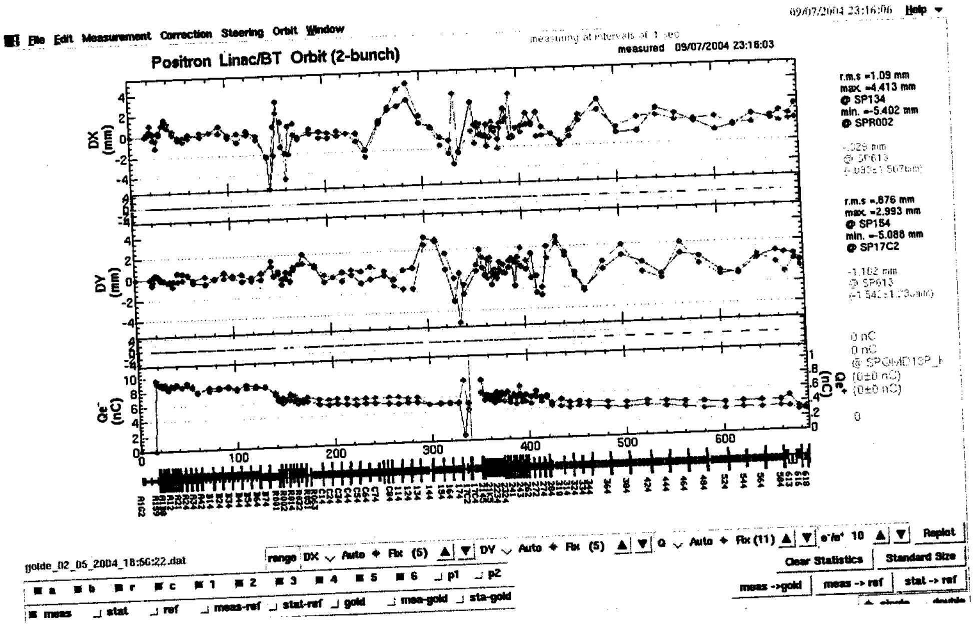
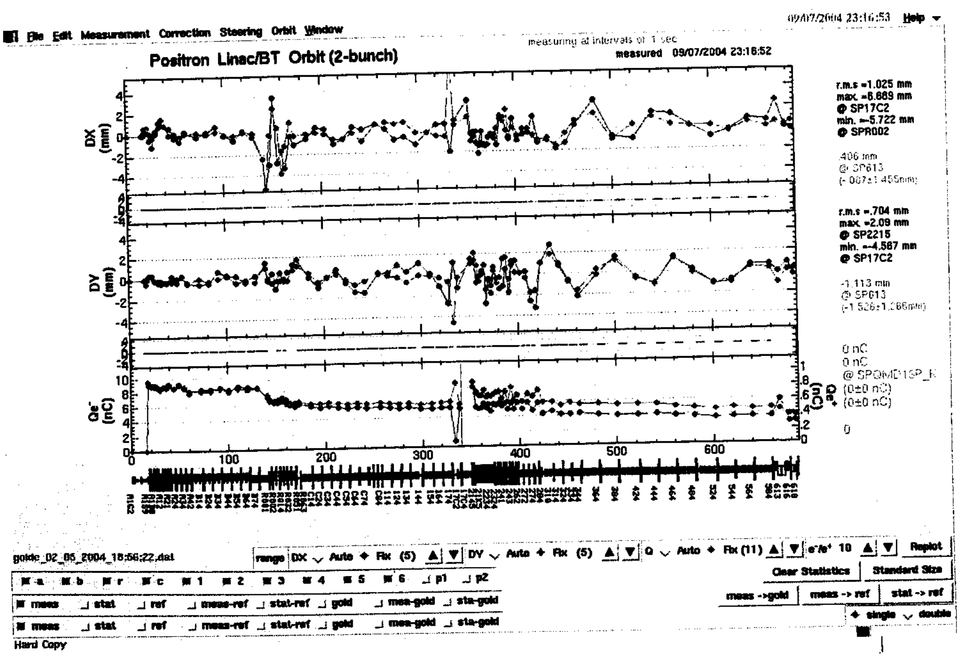


xy coupling
有り
1回

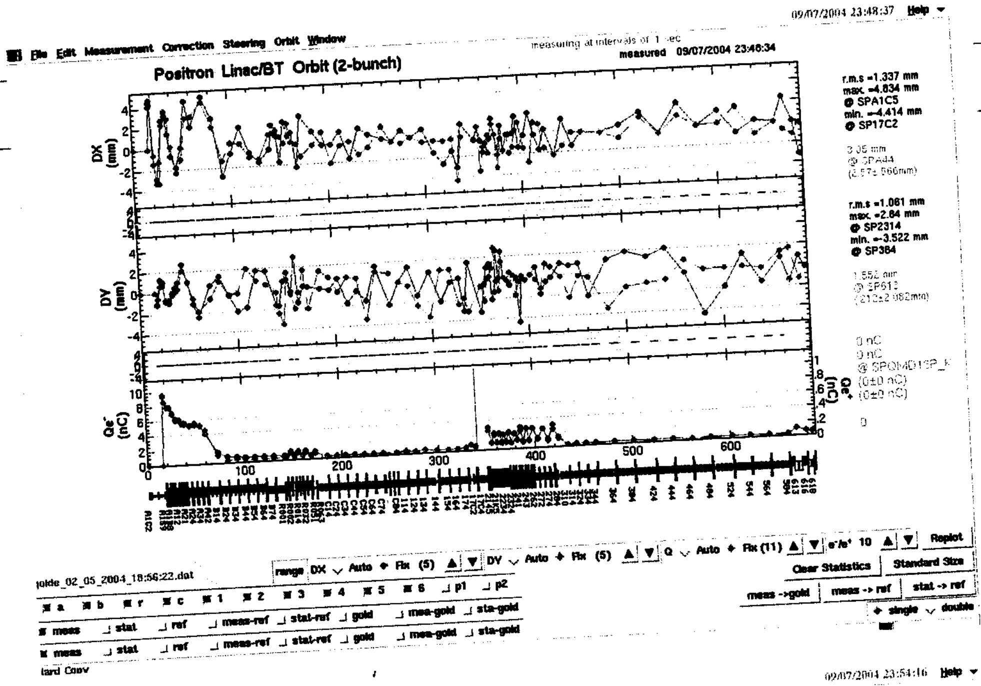


2回

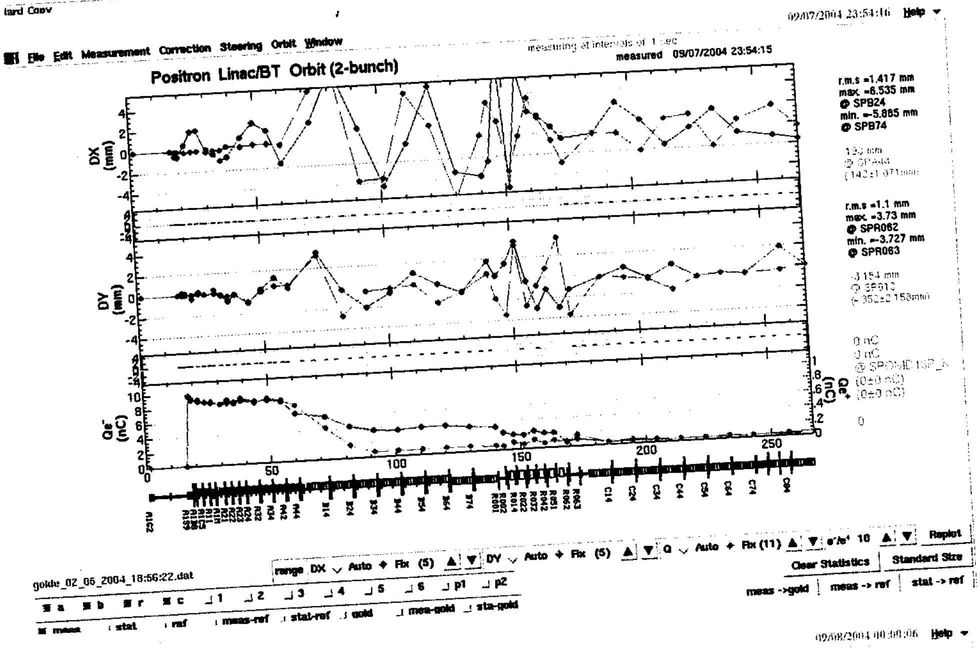


A sector

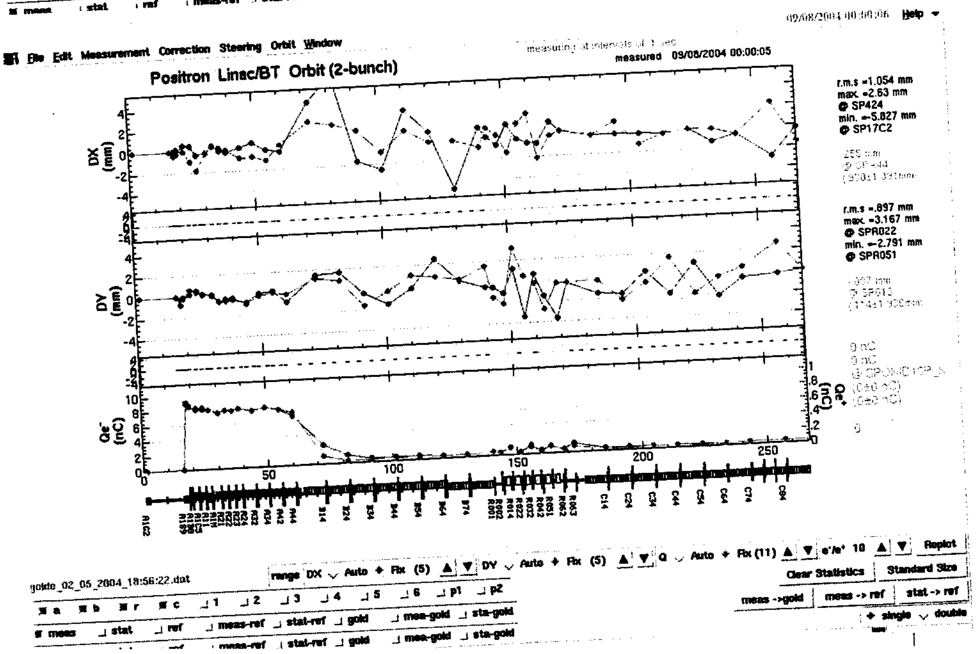
全20

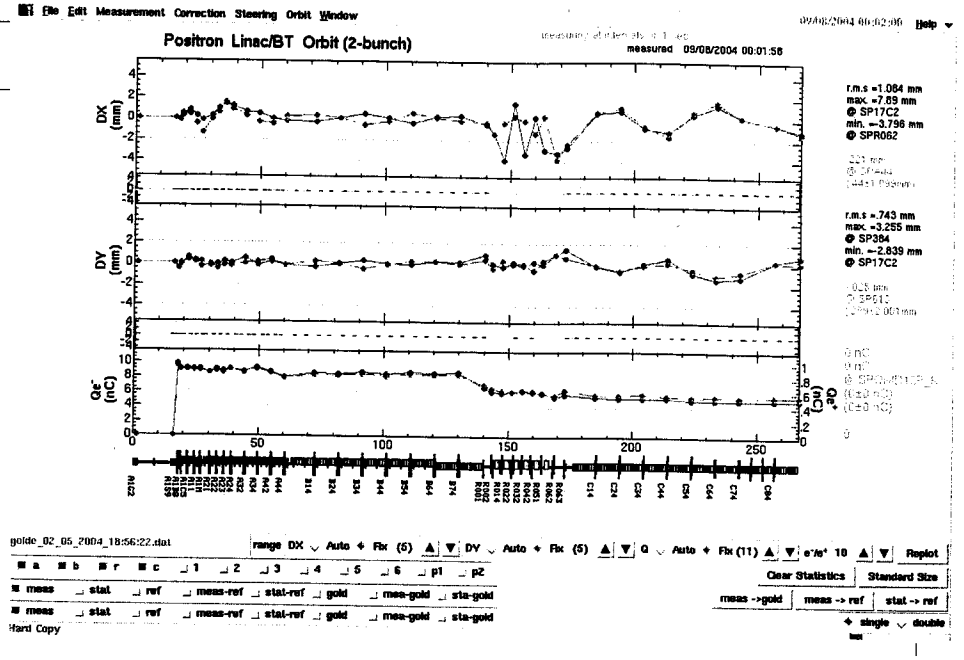


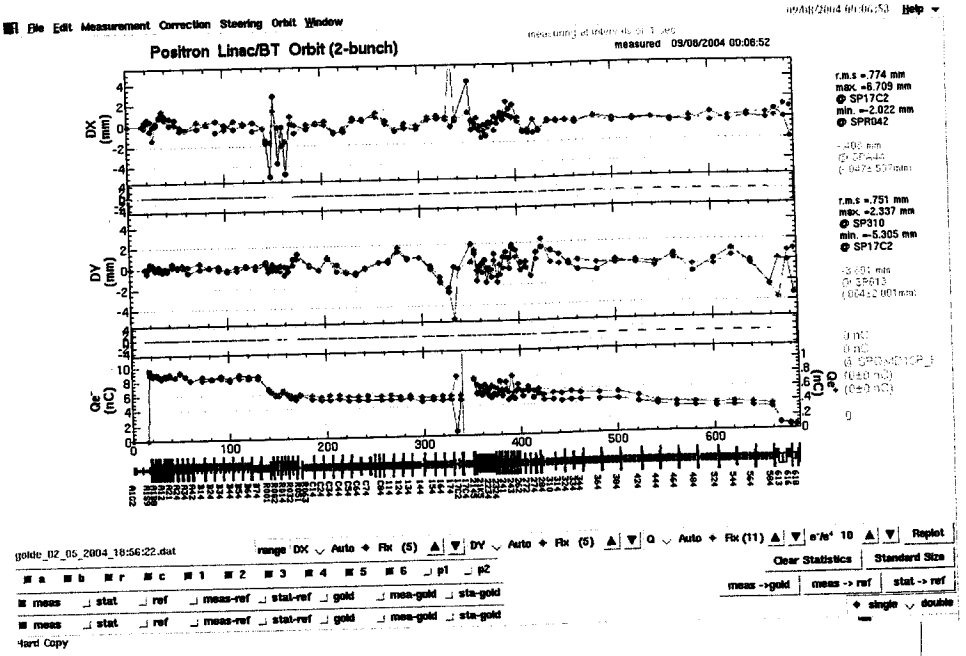
1 bunch のみ



both




File Edit Measurement Correction Steering Orbit Window
Help
Positron Linac/BT Orbit (2-bunch)
measured 09/08/2004 00:01:58
DX (mm)
DY (mm)
Qe⁻ (nC)
r.m.s =1.084 mm
max. =7.69 mm
@ SP17C2
min. =-3.796 mm
@ SPR062
r.m.s =.743 mm
max. =3.255 mm
@ SP384
min. =-2.839 mm
@ SP17C2
golde_02_05_2004_18:56:22.dat
range DX Auto Fix (5) DY Auto Fix (5) Q Auto Fix (11) e-/e+ 10 Replot
Clear Statistics Standard Size
meas ->gold meas -> ref stat -> ref
single double
Hard Copy


File Edit Measurement Correction Steering Orbit Window
Help
Positron Linac/BT Orbit (2-bunch)
measured 09/08/2004 00:06:52
DX (mm)
DY (mm)
Qe⁻ (nC)
r.m.s =.774 mm
max. =6.709 mm
@ SP17C2
min. =-2.022 mm
@ SPR042
r.m.s =.751 mm
max. =2.337 mm
@ SP310
min. =-5.305 mm
@ SP17C2
golde_02_05_2004_18:56:22.dat
range DX Auto Fix (5) DY Auto Fix (5) Q Auto Fix (11) e-/e+ 10 Replot
Clear Statistics Standard Size
meas ->gold meas -> ref stat -> ref
single double
Hard Copy

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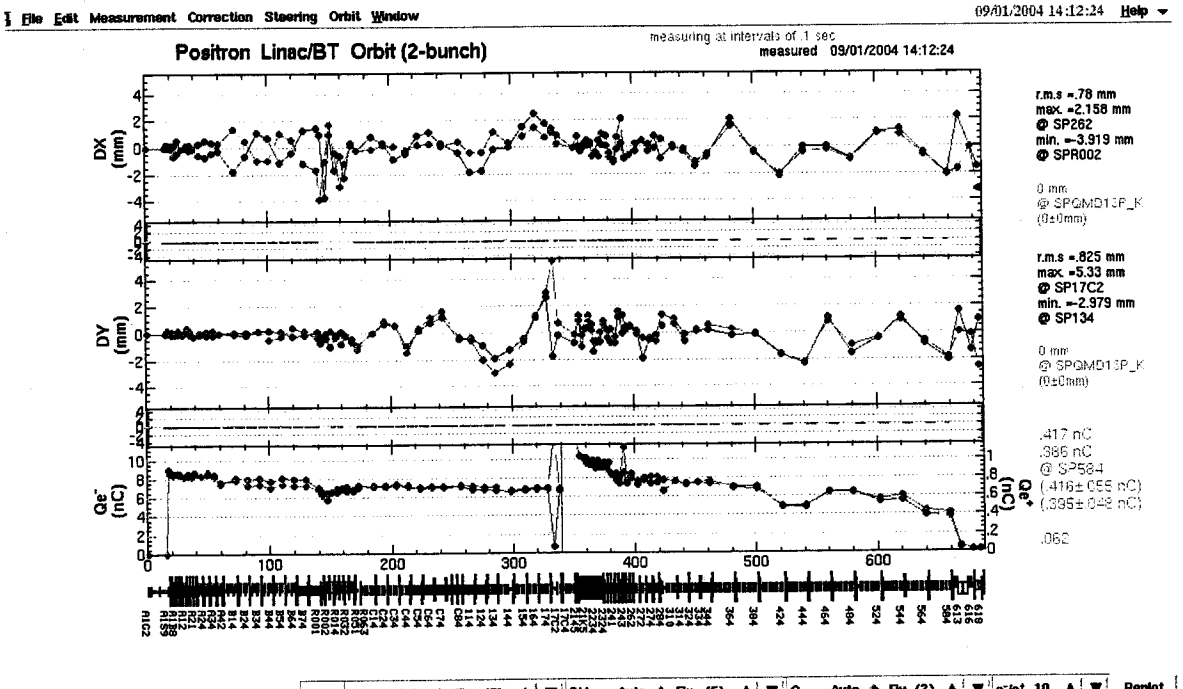
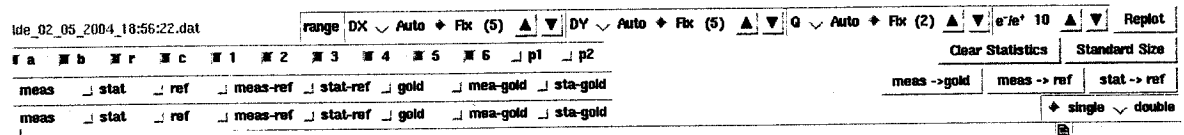
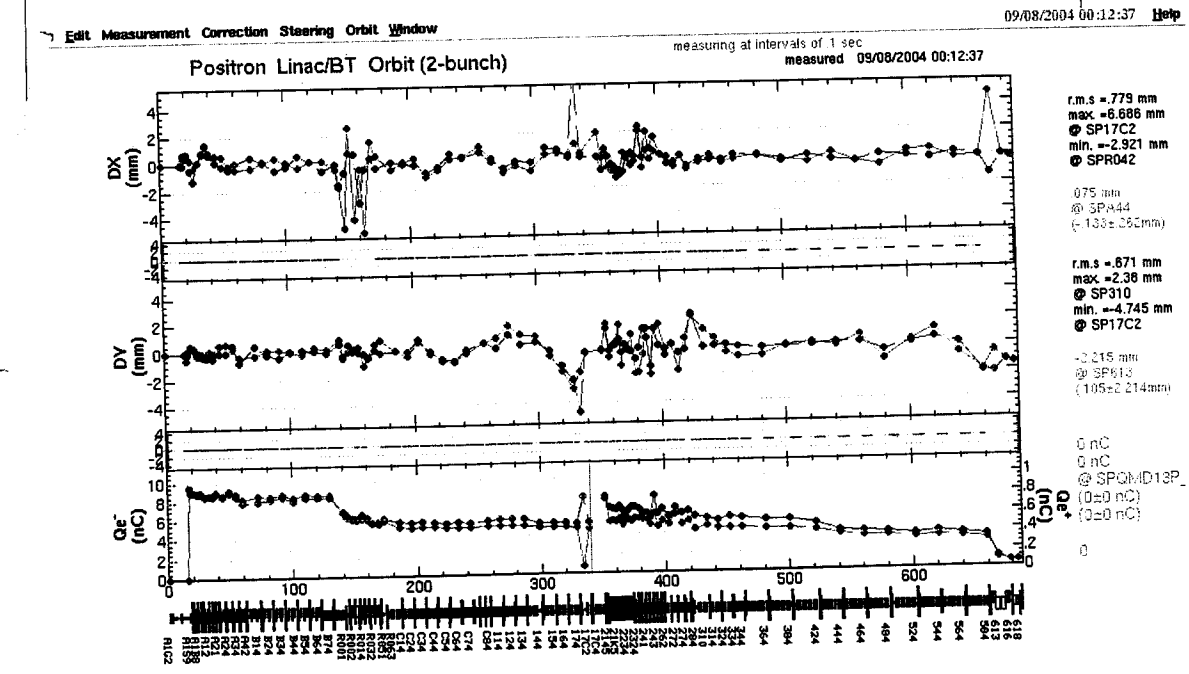
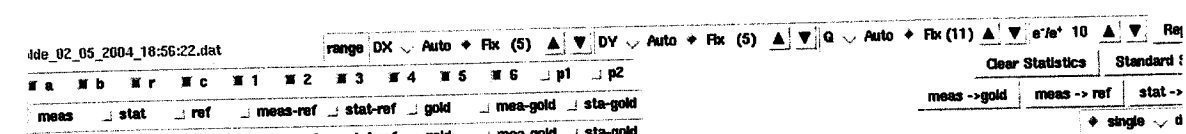
以前


File Edit Measurement Correction Steering Orbit Window
09/01/2004 14:12:24 Help
measuring at intervals of 1 sec
Positron Linac/BT Orbit (2-bunch)
measured 09/01/2004 14:12:24
DX (mm)
DY (mm)
Qe⁻ (nC)
Qe⁺ (nC)
r.m.s =.78 mm
max. =2.158 mm
@ SP262
min. =-3.919 mm
@ SPR002
r.m.s =.825 mm
max. =5.33 mm
@ SP17C2
min. =-2.979 mm
@ SP134
.417 nC
.386 nC
@ SP584
(.416±.055 nC)
(.395±.042 nC)
.062

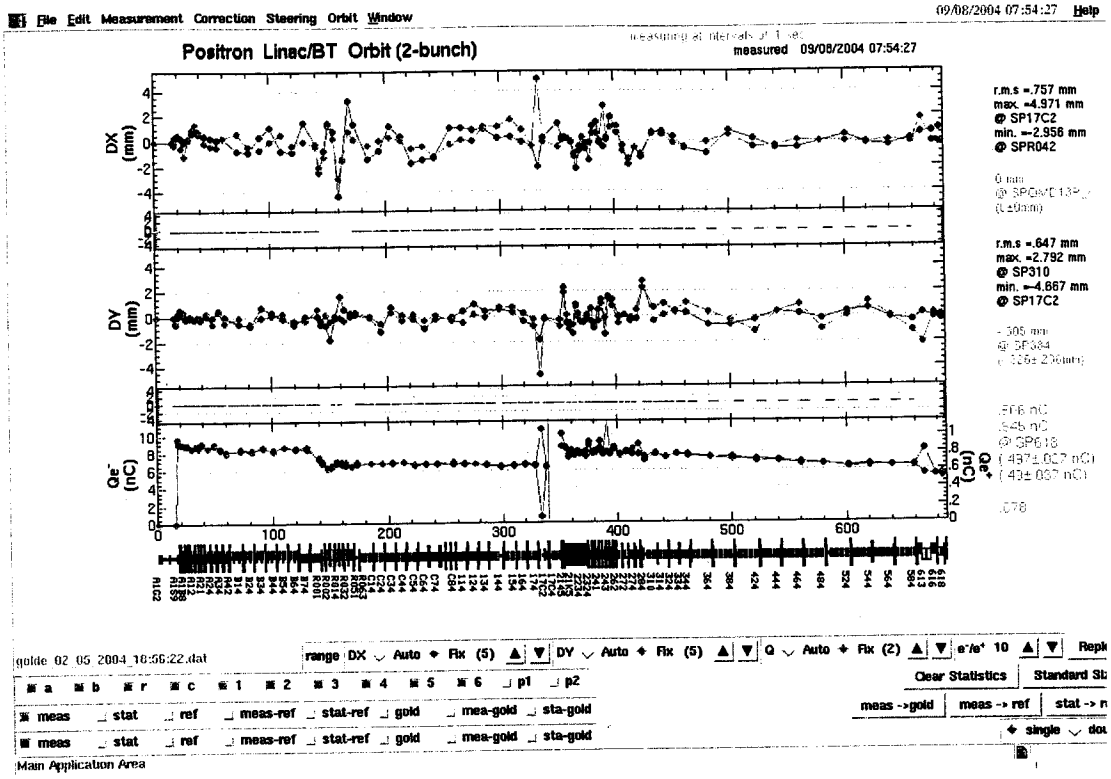

range DX Auto Fix (5) DY Auto Fix (5) Q Auto Fix (2) e⁻/e⁺ 10 Replot
Clear Statistics Standard Size
meas ->gold meas -> ref stat -> ref
single double
meas stat ref meas-ref stat-ref gold mea-gold sta-gold
meas stat ref meas-ref stat-ref gold mea-gold sta-gold

AB
補正後


Edit Measurement Correction Steering Orbit Window
09/08/2004 00:12:37 Help
measuring at intervals of 1 sec
Positron Linac/BT Orbit (2-bunch)
measured 09/08/2004 00:12:37
DX (mm)
DY (mm)
Qe⁻ (nC)
Qe⁺ (nC)
r.m.s =.779 mm
max. =6.686 mm
@ SP17C2
min. =-2.921 mm
@ SPR042
r.m.s =.671 mm
max. =2.38 mm
@ SP310
min. =-4.745 mm
@ SP17C2
0 nC
0 nC
@ SPQMD13P_
(0±0 nC)
(0±0 nC)
0


range DX Auto Fix (5) DY Auto Fix (5) Q Auto Fix (11) e⁻/e⁺ 10
Clear Statistics
meas ->gold meas -> ref
single
meas stat ref meas-ref stat-ref gold mea-gold sta-gold
meas stat ref meas-ref stat-ref gold mea-gold sta-gold

KEKB e+ INJECTION DATA **DATA 2004.09.08 TIME (**



SP_A1_B8	9.430 (9.530)	nC	SP_22_15	0.855 (0.824)	nC	SP_QMD13P	0.000 (0) nC
SP_B7_4	8.557 (8.515)	nC	SP_58_4	0.643 (0.618)	nC	蓄積率	~~1.856~~ mA
SP_C8_4	6.811 (6.694)	nC	SP_61_8	0.520 (0.509)	nC	ビーム繰返し	~~50.0~~ I
SP_17_C4	6.530 (6.299)	nC				BT Energy Feedback offset	~~-1~~

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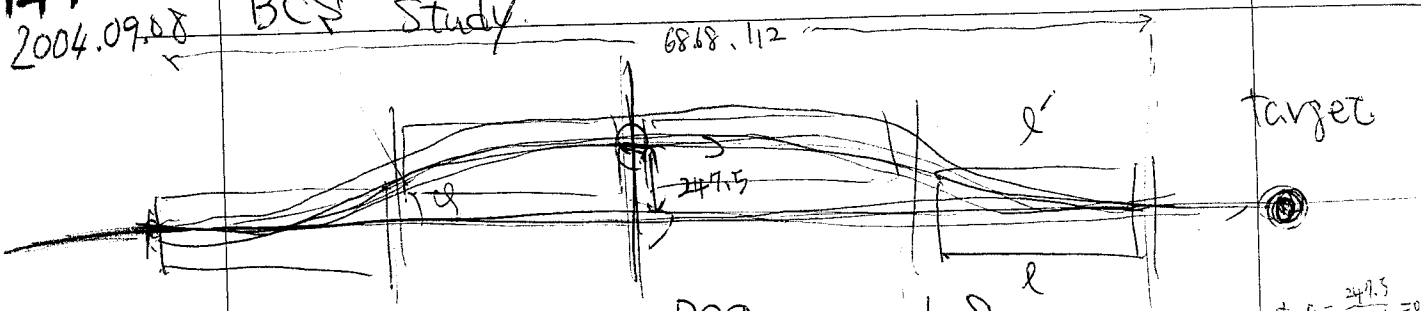
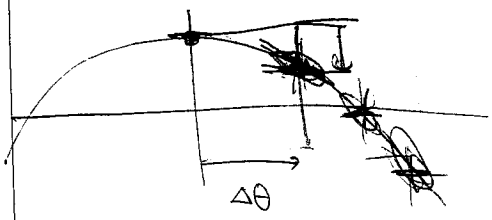
2004.09.08 BCS Study

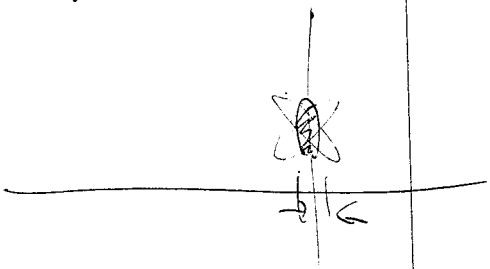


BCS at 1-8

$\tan\theta = \frac{247.5}{3434} = 0.072$
$\theta = 4.11°$

C. 1-sector





$l(p_e)$ $\left(\frac{\delta l}{\delta p_e}\right)$ =

$(1/\cos\theta - 1) \cdot 6868 = 17.9$

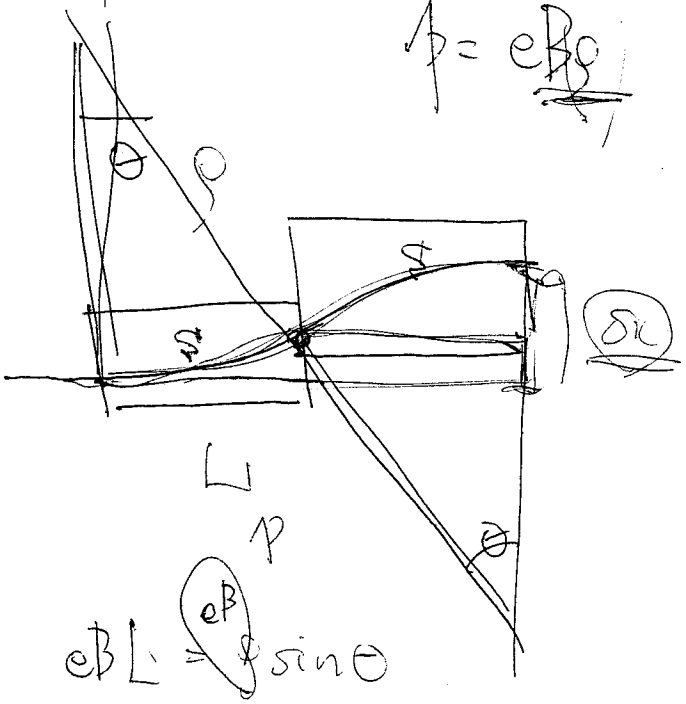
Δθ ずらしたときの $\left(\frac{\delta p_e}{\delta z}\right)$ =

$\rho = 11.74\,m$

$l' - l = \Delta l = 24\,mm$

14mm/GeV

0.2GeV × 14mm/GeV
= 2.8mm



$p = eB\rho$

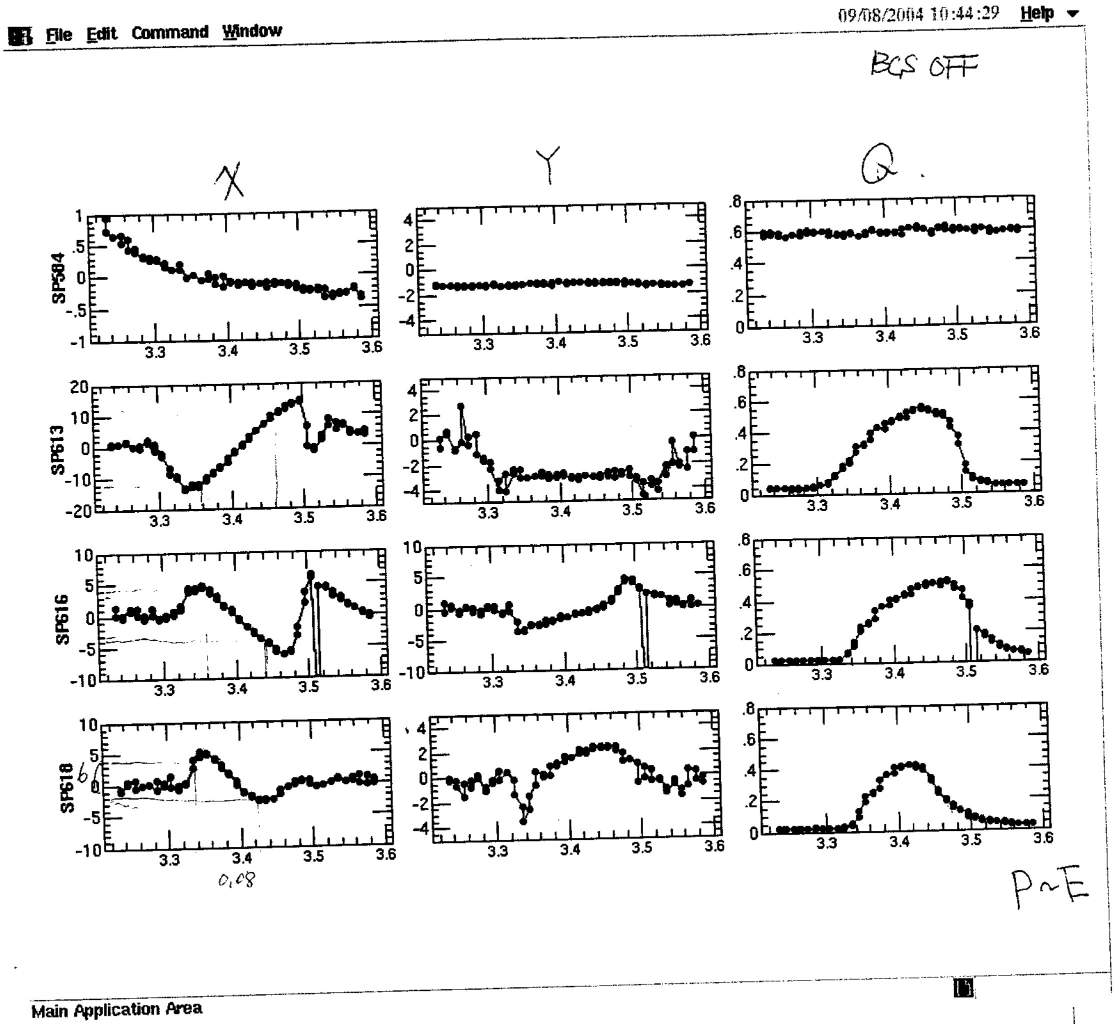
$eBL = eB\rho\sin\theta$

$\delta x = \rho(1-\cos\theta) \times 2$

$eB\delta = eB\rho\theta$

$\delta = \frac{4p\theta}{eB}$

e^- BCSストレートラインを通して、e^+のECSアパーチャーアクセプタンス.



※過去の比較Dataはない。

SP618 $y = \dfrac{-6}{0.08/3.5} = -262.5$ mm 817mm

SP616 $y = \dfrac{-8}{0.08/3.5} = -350.0$ mm 477mm

SP613 $y = \dfrac{+22}{0.1/3.5} =$ ~~385.0~~ 770.0 mm 933mm

(e^-モード)

$\Delta x = \eta\delta$, $\delta = \dfrac{\Delta P}{P}$ → $\eta = \dfrac{\Delta x}{\delta} = \dfrac{\Delta x}{\left(\frac{\Delta P}{P}\right)}$

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SC_61-3 SB_2 247.6° → 元値
SB_3 246.9° 〃
SB_4 247.2° 〃

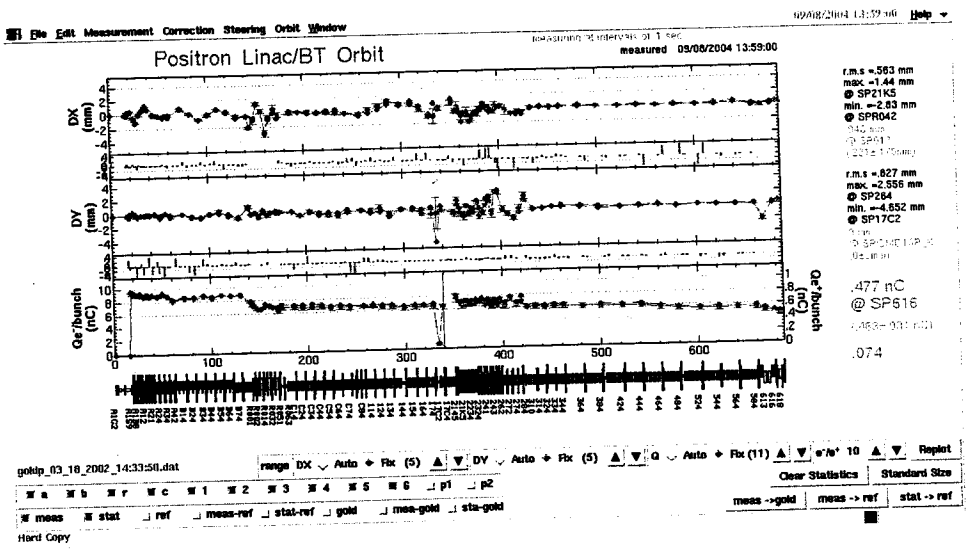
13:48 今後の方針

(tkAnalyzer2パネル)

① BCS Off z
② BCS On z Ec.1 at max B_{BCS} = 380A E_{ave} = 3.7488 GeV
③ 〃 Δθ = 10°
④ 〃 20°
⑤ 〃 30°
⑥ 〃 40°
⑦ BCS Off z Ec.1 at max
⑧ 〃 Δθ = 10°
⑨ 〃 20°
⑩ 〃 30°
⑪ 〃 40°

Dispersion = 0.251 m

14:16 ① BCS Off (First bunch only で study)



ds = 27.225 = 46.6850570336896deg
bunch length(10ps) = 2.99792458 = 5.1408deg

th[deg]	dp[GeV]	p[GeV]	ds[mm]	ds/dp
0.00	-0.04	3.90	-0.49	13.96
10.00	-0.10	3.87	-1.45	14.08
20.00	-0.17	3.77	-2.42	14.45
30.00	-0.23	3.61	-3.43	15.10
40.00	-0.28	3.39	-4.49	16.08
50.00	-0.32	3.11	-5.66	17.48
60.00	-0.36	2.80	-6.96	19.45
70.00	-0.38	2.45	-8.46	22.20
80.00	-0.39	2.08	-10.27	26.15
90.00	-0.39	1.70	-12.58	32.03

23° GeV

14:30 停電.

15:52 ビーム復帰

16? 17:45 BCS Bend ON.

17:15 放射線のチェック終る (約20分間 ビームを止めた).

17:45 BCS magnet 設定の件.

何をやってもPOLが逆になってしまう → 裏ワザを使う

mgc2h BM_17_C1/2/3/4 2.0 → hex で表示される.

mg abs BM … -x … で設定する.

→ BCS FBを stop する. 1XYe+ KEKB Orbit FB を STOP

BCS BM-17- C1/2/3/4 380 A.

BPM SP21-K5 -3.902 を見ながら軌道補正。~0.7nC

BX-17-C5 -3.893 → -1.933

BY-17-C5 0.278 → -0.222

SB KL-18	219.5	95° → -95.0 した。
KL-21	178	
SB 2	247.5	
SB 3	246.9	
SB 4	247.2	
SB 5	262.0	

125.0
93.0