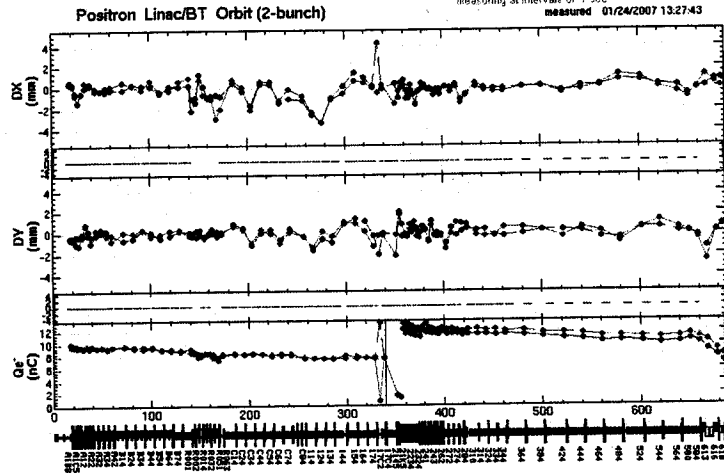


SB-A.B $\phi 85.5^\circ (-1^\circ)$

File Edit Measurement Correction Steering Orbit Window 01/24/2007 13:27:43 Help



r.m.s = 1.511 mm
 max = 4.281 mm
 @ SP17C2
 min = -0.828 mm
 @ SPGCF1P_K
 59 mm
 @ SP644
 (1.623; 113mm)
 r.m.s = 1.15 mm
 max = 4.03 mm
 @ SPQWFP_4A
 min = -2.501 mm
 @ SPQTF3P_A
 208 mm
 @ SPA42
 (1.652; 354mm)
 1.010 nC
 1.059 nC
 @ SP504
 (1.966; 118 nC)
 (1.018; 124 nC)
 746

goldfile range DX Auto Fit (5) DY Auto Fit (5) Q Auto Fit (13) n/n 10 Replot

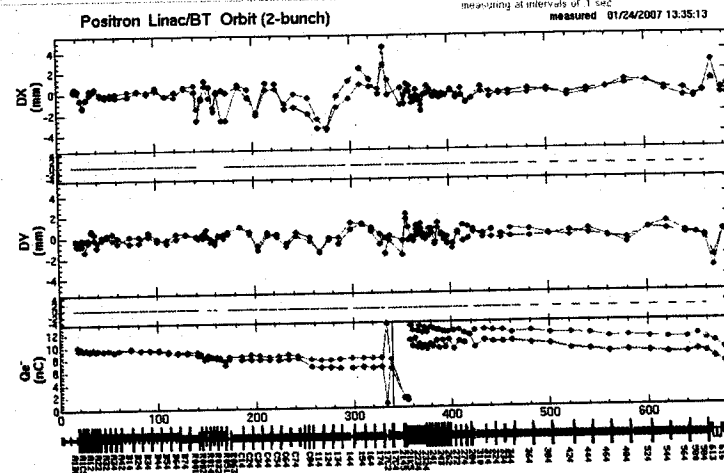
Clear Statistics Standard Size

mess stat ref mess-ref stat-ref gold mess-gold sta-gold
 mess stat ref mess-ref stat-ref gold mess-gold sta-gold
 single double

Hard Copy

SB-A.B $\phi 84.5^\circ (-2^\circ)$

File Edit Measurement Correction Steering Orbit Window 01/24/2007 13:35:14 Help



r.m.s = 1.554 mm
 max = 4.408 mm
 @ SP17C2
 min = -0.828 mm
 @ SPGCF1P_K
 92 mm
 @ SP644
 (1.638; 150mm)
 r.m.s = 1.153 mm
 max = 4.03 mm
 @ SPQWFP_4A
 min = -2.501 mm
 @ SPQTF3P_A
 201 mm
 @ SPA42
 (1.652; 354mm)
 845 nC
 1.053 nC
 @ SP504
 (1.818; 121 nC)
 (1.002; 129 nC)
 720

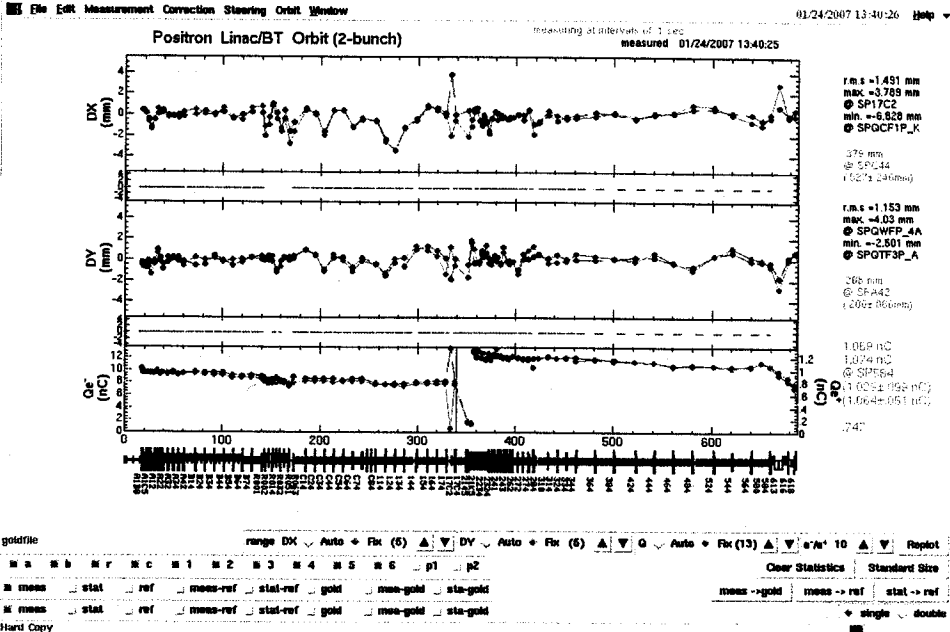
goldfile range DX Auto Fit (5) DY Auto Fit (5) Q Auto Fit (13) n/n 10 Replot

Clear Statistics Standard Size

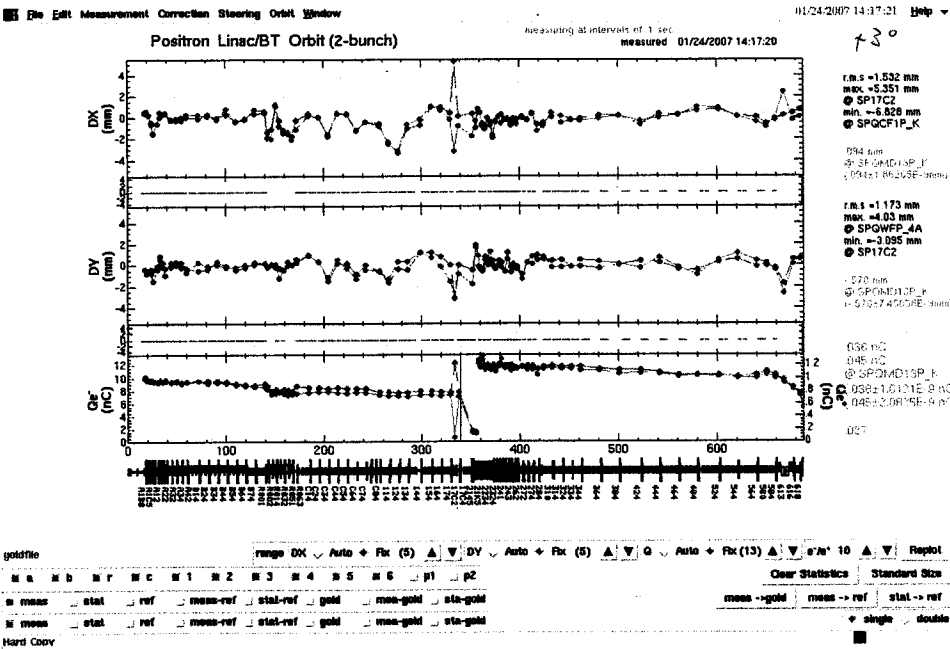
mess stat ref mess-ref stat-ref gold mess-gold sta-gold
 mess stat ref mess-ref stat-ref gold mess-gold sta-gold
 single double

Hard Copy

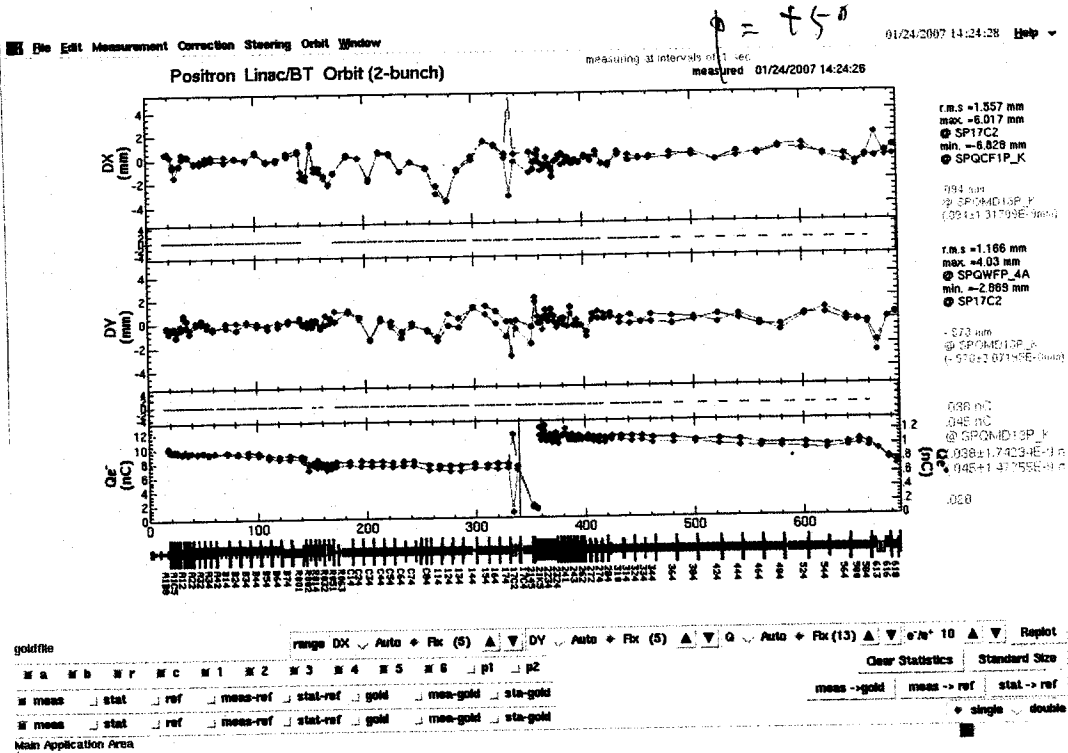
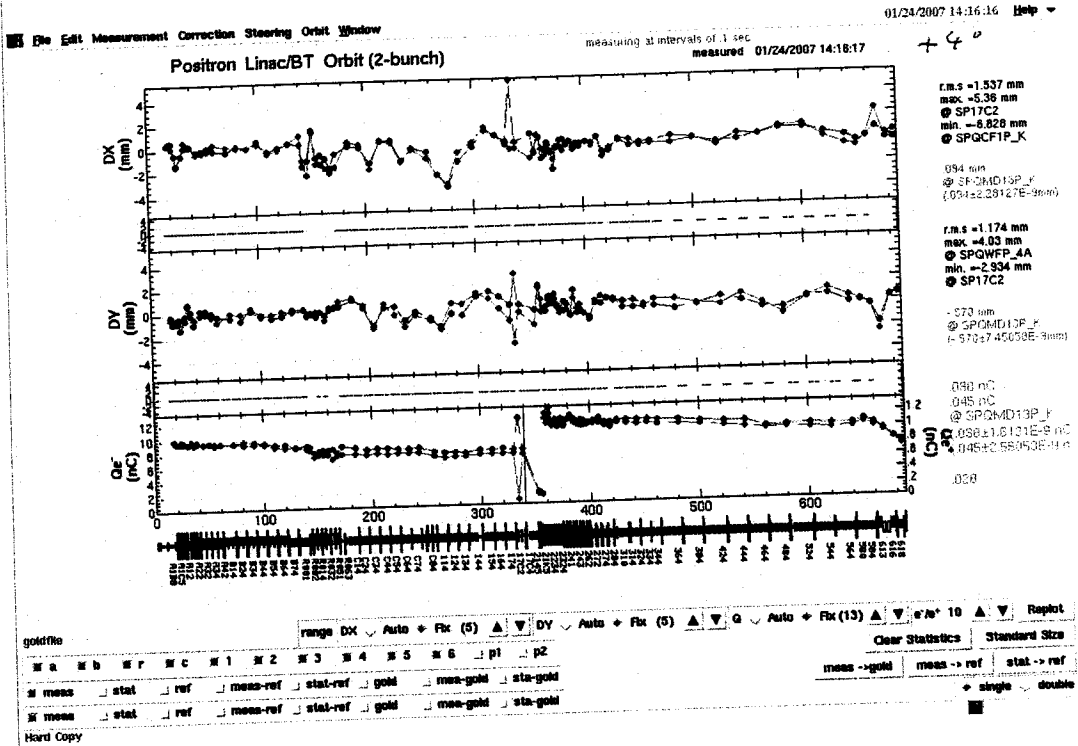
SB_A.B ϕ 86.5° (0°)

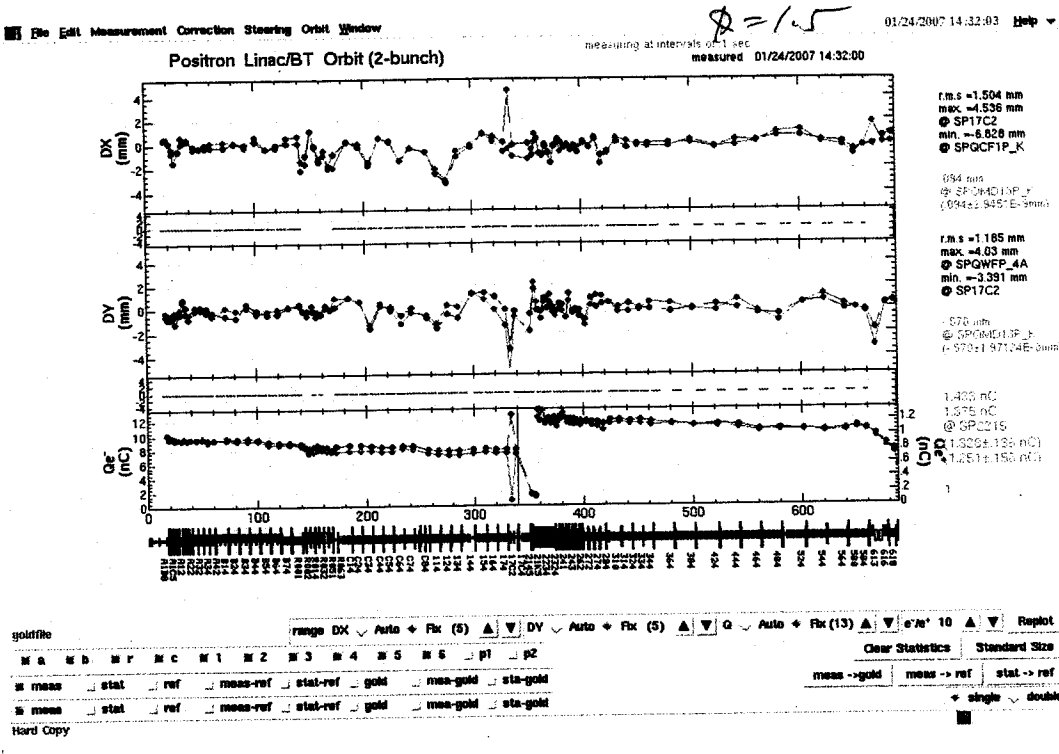


SB_A.B ϕ 89.5° (+3°)



SB-AB ϕ 90.5° (+4°)





$\phi = 35$ $\phi_{AB} = +1.5$ $\phi = 90$ $\phi = 120$

JB C. 1 ϕ dependence $\approx \frac{1}{2} \phi^2$

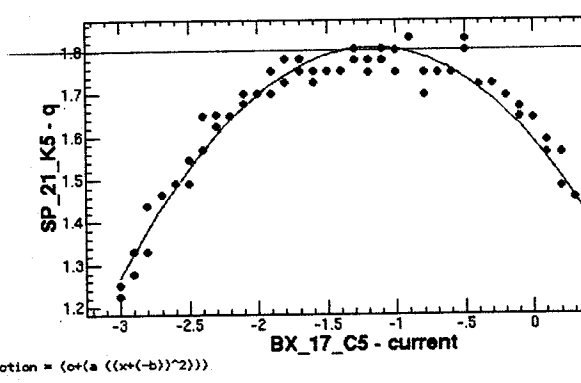
$\phi_1 = 89.0^\circ$
 $\phi_2 = 89.1^\circ$

14 = 36
14 = 40
14 = 46
14 =
15 = 00
15 = 15

$\phi_{C1} + 1$
 $+ 2$
 $+ 3$
 $+ 4$
 $+ 6$
 $+ 8$
 $- 1$
 $- 3$
 $+ 5$

File Edit Window 01/24/2007 14:32:03

ChiSquare = .11631 Goodness = .47736
a = -.16099 +/- .00502 b = -1.1706 +/- .01468 o = 1.80941 +/-

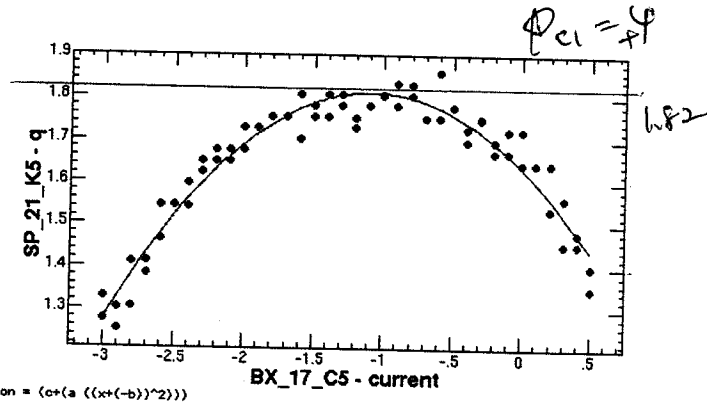
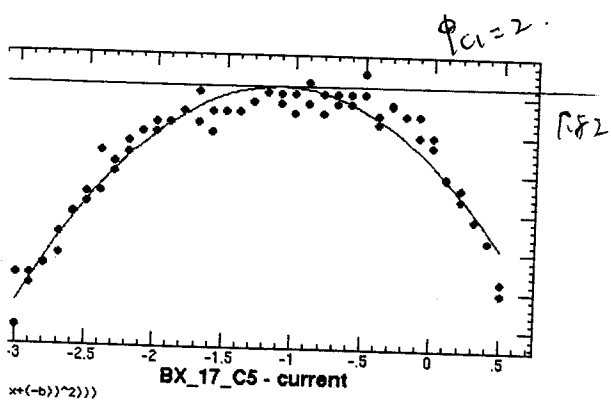


$\phi_{C1} = -$

Hard Copy

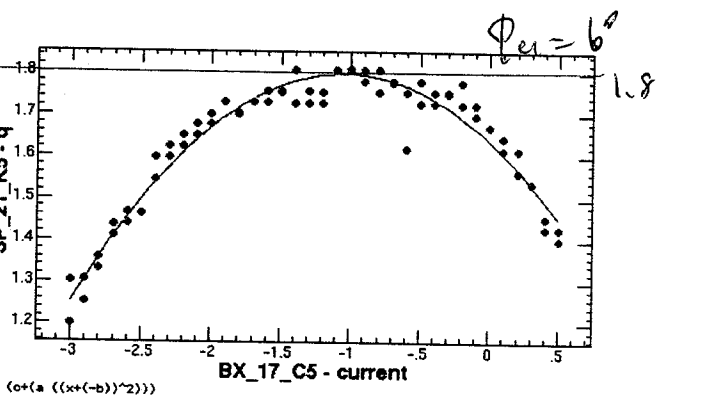
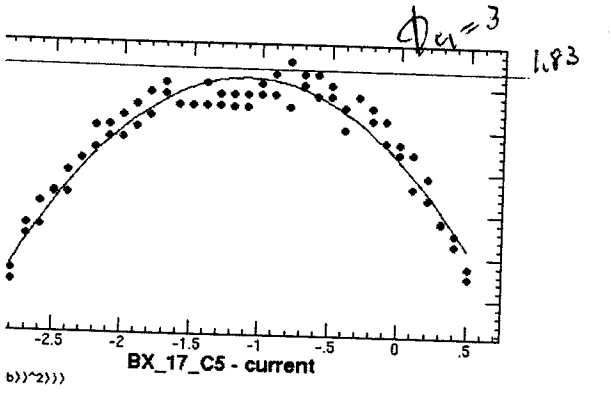
indow 01/24/2007 14:45:53 Help
 45 Goodness = .47736
 .00525 b = -1.1192 +/- .01607 c = 1.82082 +/- .00756

File Edit Window 01/24/2007 15:01:44 Help
 ChiSquare = .11261 Goodness = .47736
 a = -.14708 +/- .00494 b = -1.0941 +/- .01644 c = 1.81073 +/- .00709



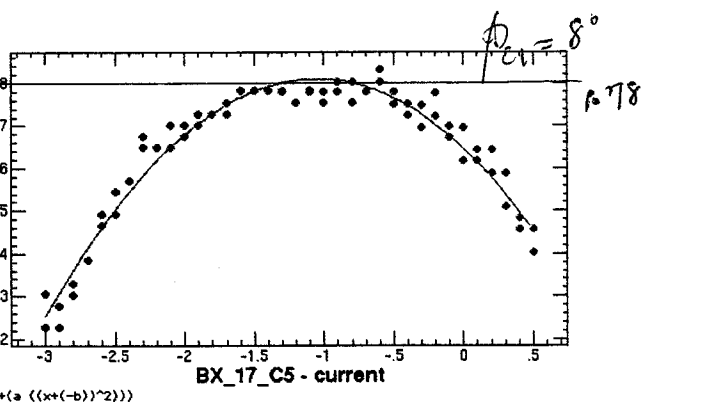
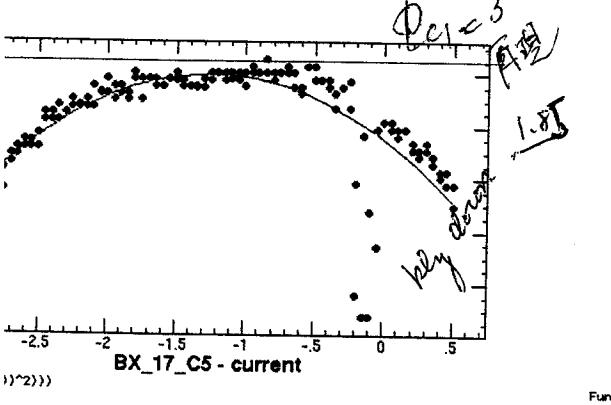
indow 01/24/2007 14:49:54 Help
 56 Goodness = .47736
 b = -1.1114 +/- .01451 c = 1.81970 +/- .00671

File Edit Window 01/24/2007 15:05:37 Help
 ChiSquare = .09733 Goodness = .47736
 a = -.14292 +/- .00459 b = -1.0533 +/- .01619 c = 1.79630 +/- .00657



indow 01/24/2007 14:56:29 Help
 56 Goodness = .48405
 b = -1.2602 +/- .03273 c = 1.79932 +/- .01580

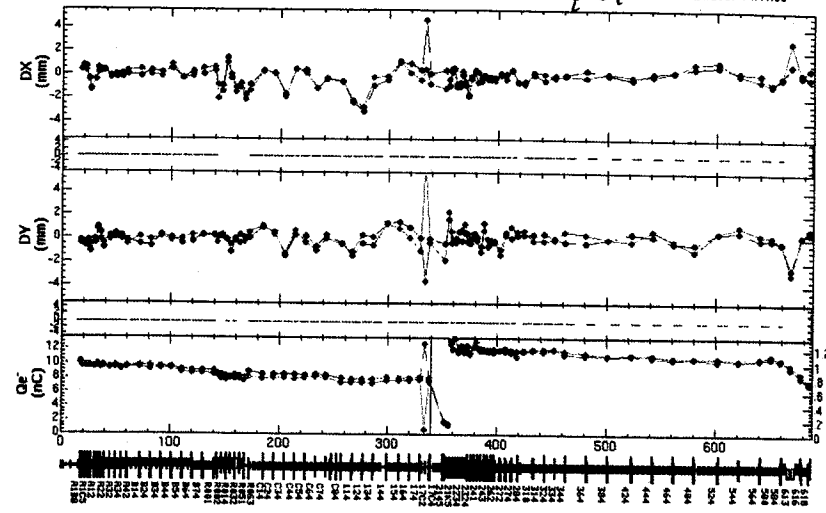
File Edit Window 01/24/2007 15:09:39 Help
 ChiSquare = .08637 Goodness = .47736
 a = -.14687 +/- .00432 b = -1.0554 +/- .01482 c = 1.80977 +/- .00619



Hard Copy

Positron Linc/BT Orbit (2-bunch)

measuring at intervals of 1 sec
 $\phi_{el} = 1^\circ$
 measured 01/24/2007 14:41:35



r.m.s = 1.507 mm
 max = 4.615 mm
 SP17C2
 min = -6.828 mm
 SPQCF1P_K
 954 nA
 SPQCF1P_K
 0.541 nA
 r.m.s = 1.193 mm
 max = 4.03 mm
 SPQWFP_4A
 min = -3.624 mm
 SP17C2
 -0.72 nA
 SPQWFP_4A
 0.570 nA
 1.404 nC
 1.367 nC
 SP1215
 1.350 nC
 1.294 nC

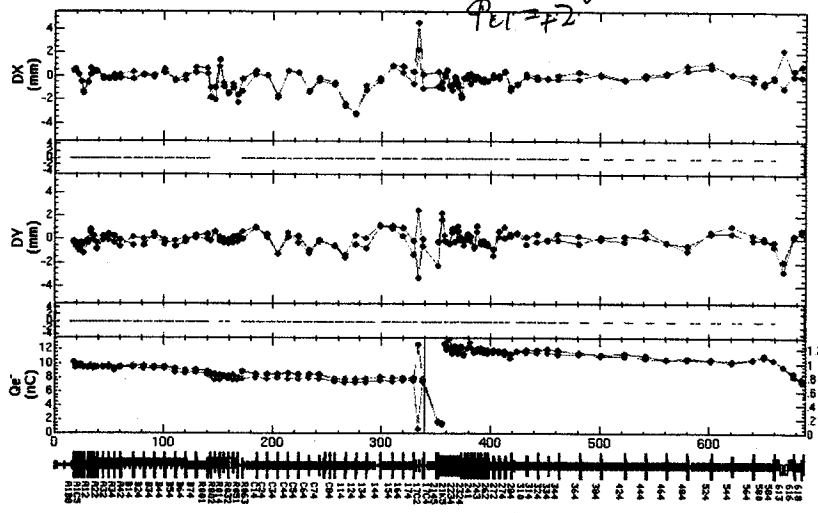
goldfile range DX Auto + Fix (5) DY Auto + Fix (5) Q Auto + Fix (13) e/n' 10 Replot

meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	meas -> gold	meas -> ref	stat -> ref
meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	single double		

Hard Copy

Positron Linc/BT Orbit (2-bunch)

measuring at intervals of 1 sec
 $\phi_{el} = 2^\circ$
 measured 01/24/2007 14:45:40



r.m.s = 1.508 mm
 max = 4.534 mm
 SP17C2
 min = -6.828 mm
 SPQCF1P_K
 954 nA
 SPQCF1P_K
 0.541 nA
 r.m.s = 1.175 mm
 max = 4.03 mm
 SPQWFP_4A
 min = -3.258 mm
 SP17C2
 -0.72 nA
 SPQWFP_4A
 0.570 nA
 1.441 nC
 1.375 nC
 SP1215
 1.345 nC
 1.274 nC

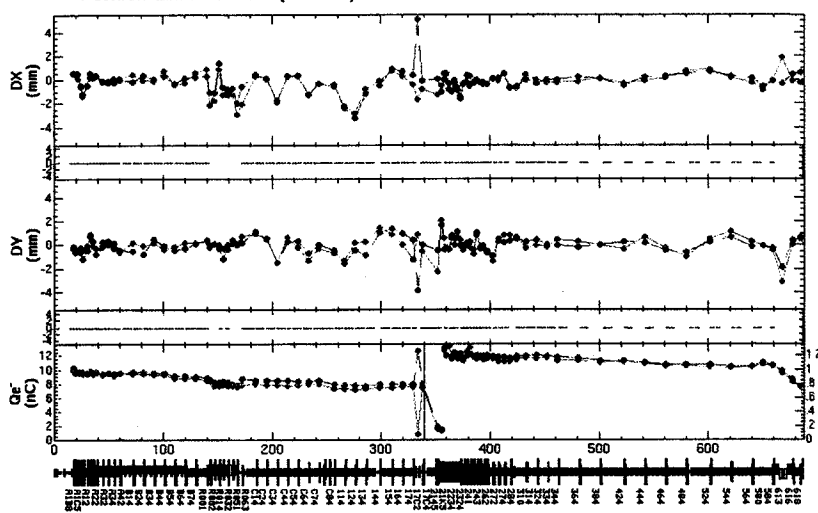
goldfile range DX Auto + Fix (5) DY Auto + Fix (5) Q Auto + Fix (13) e/n' 10 Replot

meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	meas -> gold	meas -> ref	stat -> ref
meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	single double		

Hard Copy

Positron Linc/BT Orbit (2-bunch)

measuring at intervals of 1 sec
 $\phi_{el} = 3^\circ$
 measured 01/24/2007 14:49:15



r.m.s = 1.519 mm
 max = 5.097 mm
 SP17C2
 min = -6.828 mm
 SPQCF1P_K
 954 nA
 SPQCF1P_K
 0.541 nA
 r.m.s = 1.191 mm
 max = 4.03 mm
 SPQWFP_4A
 min = -3.791 mm
 SP17C2
 -0.72 nA
 SPQWFP_4A
 0.570 nA
 1.404 nC
 1.366 nC
 SP1215
 1.352 nC
 1.297 nC

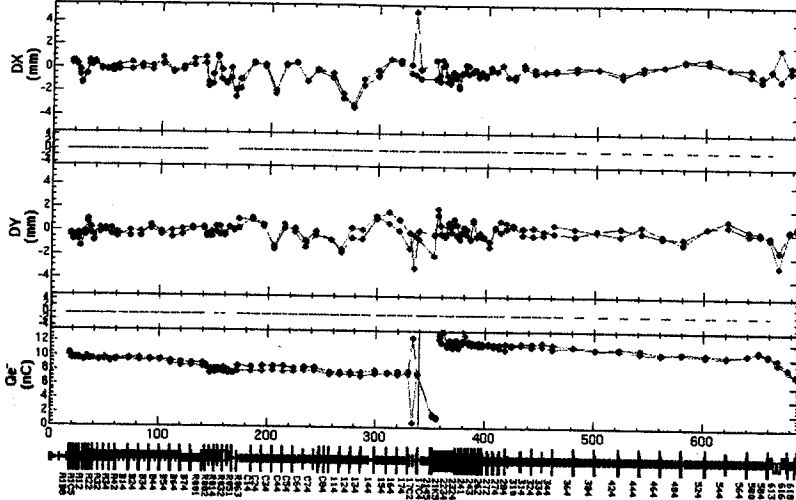
goldfile range DX Auto + Fix (5) DY Auto + Fix (5) Q Auto + Fix (13) e/n' 10 Replot

meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	meas -> gold	meas -> ref	stat -> ref
meas	stat	ref	meas-ref	stat-ref	gold	mea-gold	sta-gold	single double		

Progress Bar

Positron Linac/BT Orbit (2-bunch)

measuring at intervals of 1 sec
measured 01/24/2007 14:56:11



$\Phi_{rel} = 3$

r.m.s = 1.51 mm
max = 4.912 mm
@ SP17C2
min = -6.828 mm
@ SPQCF1P_K

994 mm
@ SPQWFP_4A
@ SP17C2

r.m.s = 1.17 mm
max = 4.03 mm
@ SPQWFP_4A
min = -3.031 mm
@ SP17C2

-573 mm
@ SPQWFP_4A
@ SP17C2

1.474 nC
1.375 nC
@ SPQCF1P_K
1.282 nC
1.211 nC

goldfile range DX Auto + Fix (5) Δ ∇ DY Auto + Fix (5) Δ ∇ G Auto + Fix (13) Δ ∇ e/e' 10 Δ ∇ Replot

Clear Statistics Standard Size

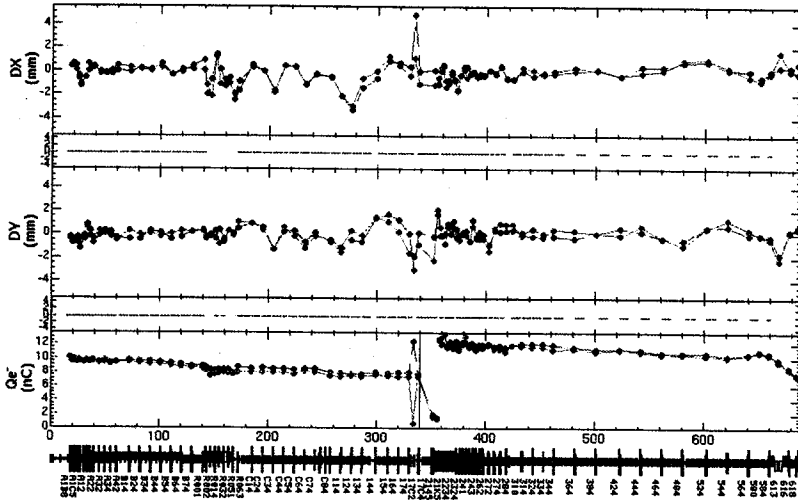
meas stat ref meas-ref stat-ref gold mea-gold sta-gold meas->gold meas->ref stat->ref

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

main Application Area

Positron Linac/BT Orbit (2-bunch)

measuring at intervals of 1 sec
measured 01/24/2007 15:00:48



$\Phi_{rel} = 4$

r.m.s = 1.51 mm
max = 4.786 mm
@ SP17C2
min = -6.828 mm
@ SPQCF1P_K

994 mm
@ SPQWFP_4A
@ SP17C2

r.m.s = 1.174 mm
max = 4.03 mm
@ SPQWFP_4A
min = -3.004 mm
@ SP17C2

-573 mm
@ SPQWFP_4A
@ SP17C2

1.476 nC
1.375 nC
@ SPQCF1P_K
1.282 nC
1.211 nC

goldfile range DX Auto + Fix (5) Δ ∇ DY Auto + Fix (5) Δ ∇ G Auto + Fix (13) Δ ∇ e/e' 10 Δ ∇ Replot

Clear Statistics Standard Size

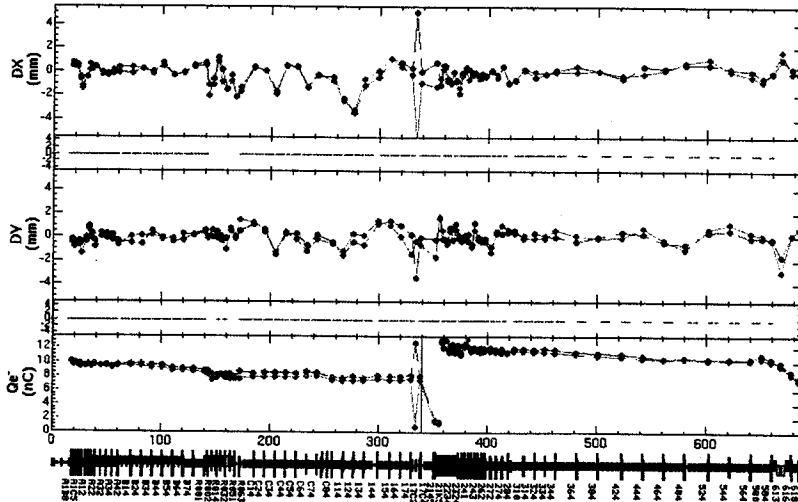
meas stat ref meas-ref stat-ref gold mea-gold sta-gold meas->gold meas->ref stat->ref

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

Hard Copy

Positron Linac/BT Orbit (2-bunch)

measuring at intervals of 1 sec
measured 01/24/2007 15:05:03



$\Phi_{rel} = 6$

r.m.s = 1.53 mm
max = 5.003 mm
@ SP17C2
min = -6.828 mm
@ SPQCF1P_K

994 mm
@ SPQWFP_4A
@ SP17C2

r.m.s = 1.177 mm
max = 4.03 mm
@ SPQWFP_4A
min = -3.408 mm
@ SP17C2

-573 mm
@ SPQWFP_4A
@ SP17C2

1.407 nC
1.366 nC
@ SPQCF1P_K
1.312 nC
1.261 nC

goldfile range DX Auto + Fix (5) Δ ∇ DY Auto + Fix (5) Δ ∇ G Auto + Fix (13) Δ ∇ e/e' 10 Δ ∇ Replot

Clear Statistics Standard Size

meas stat ref meas-ref stat-ref gold mea-gold sta-gold meas->gold meas->ref stat->ref

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

Hard Copy

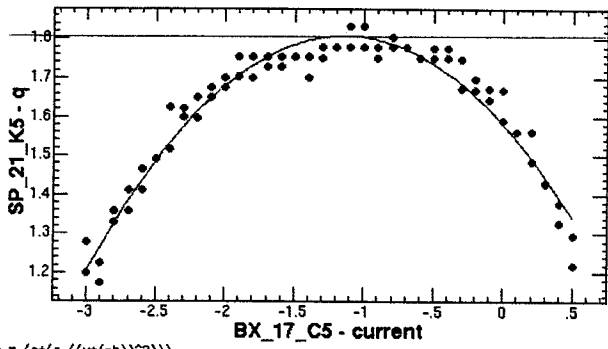
File Edit Window

01/24/2007 15:13:34

Help

ChiSquare = .11743 Goodness = .47736
a = -.17427 +/- .00504 b = -1.1429 +/- .01378 c = 1.80781 +/- .00727

$\phi_{ci} = -7^\circ$



1.8

Function = (c+(a ((x+(-b))^2)))

Hard Copy

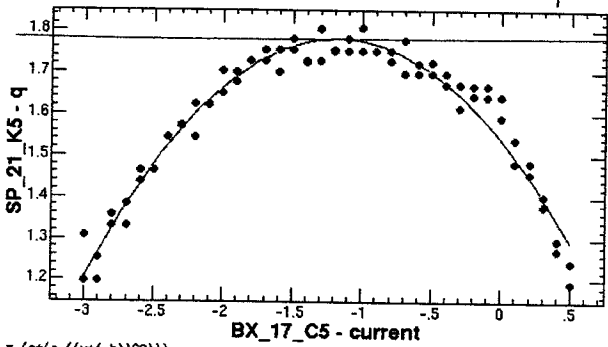
File Edit Window

01/24/2007 15:17:34

Help

ChiSquare = .10391 Goodness = .47736
a = -.17358 +/- .00474 b = -1.1816 +/- .01282 c = 1.77997 +/- .00685

$\phi_{ci} = -3$



1.8

Function = (c+(a ((x+(-b))^2)))

Hard Copy

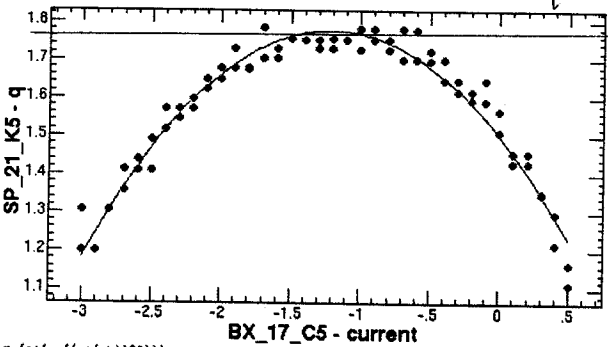
File Edit Window

01/24/2007 15:23:31

Help

ChiSquare = .10924 Goodness = .47736
a = -.18493 +/- .00486 b = -1.2152 +/- .01224 c = 1.77470 +/- .00704

$\phi_{ci} = -5$

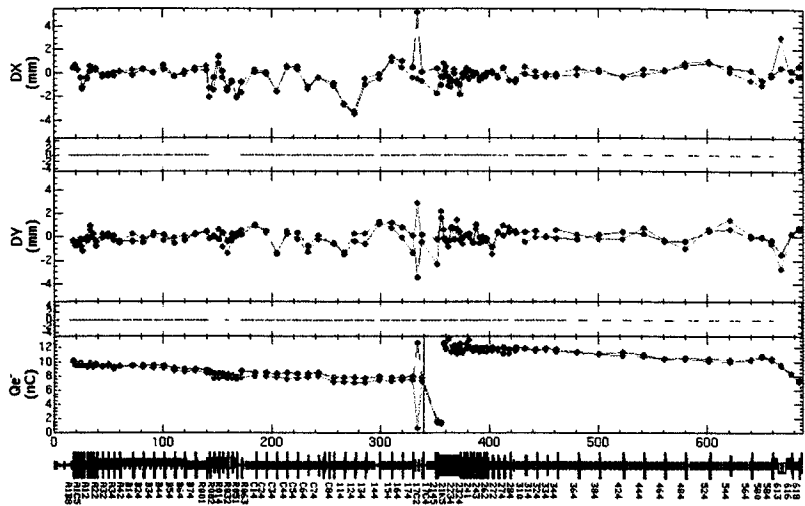


1.8

Function = (c+(a ((x+(-b))^2)))

Hard Copy

Positron Linac/BT Orbit (2-bunch)



r.m.s = 1.53 mm
 max = 5.158 mm
 SP17C2
 min = -6.828 mm
 SPQCIP1_K

 r.m.s = 1.189 mm
 max = 4.03 mm
 SPQWFP_4A
 min = -3.4 mm
 SP17C2

 1.990 nC
 1.920 nC
 SPQCIP1_K
 1.930 nC
 1.940 nC

youfile range DX Auto + Fx (5) Δ ∇ DY Auto + Fx (5) Δ ∇ Q Auto + Fx (13) Δ ∇ e/e' 10 Δ ∇ Rplot
 x meas stat ref meas-ref stat-ref gold mea-gold sta-gold Clear Statistics Standard Size
 x meas stat ref meas-ref stat-ref gold mea-gold sta-gold meas -> gold meas -> ref stat -> ref
 Status Display single double



SC-17-05 11:27

15:47

2D 174 7.990 (\rightarrow 9.072)
 QF 174 9.022

1:12 SC1705 2- round beam \rightarrow 8873622
 QF-174/5 a Multiple Ratio \rightarrow I E 174

QF17-4/5	SP21K5
10.764	1.44
11.764	1.58
12.764	1.57
13.764	1.70
14.764	1.75
15.764	1.71
16.764	1.72
17.764	1.71
18.764	1.71

19.764
~~20.764~~
 1.70
 1.64