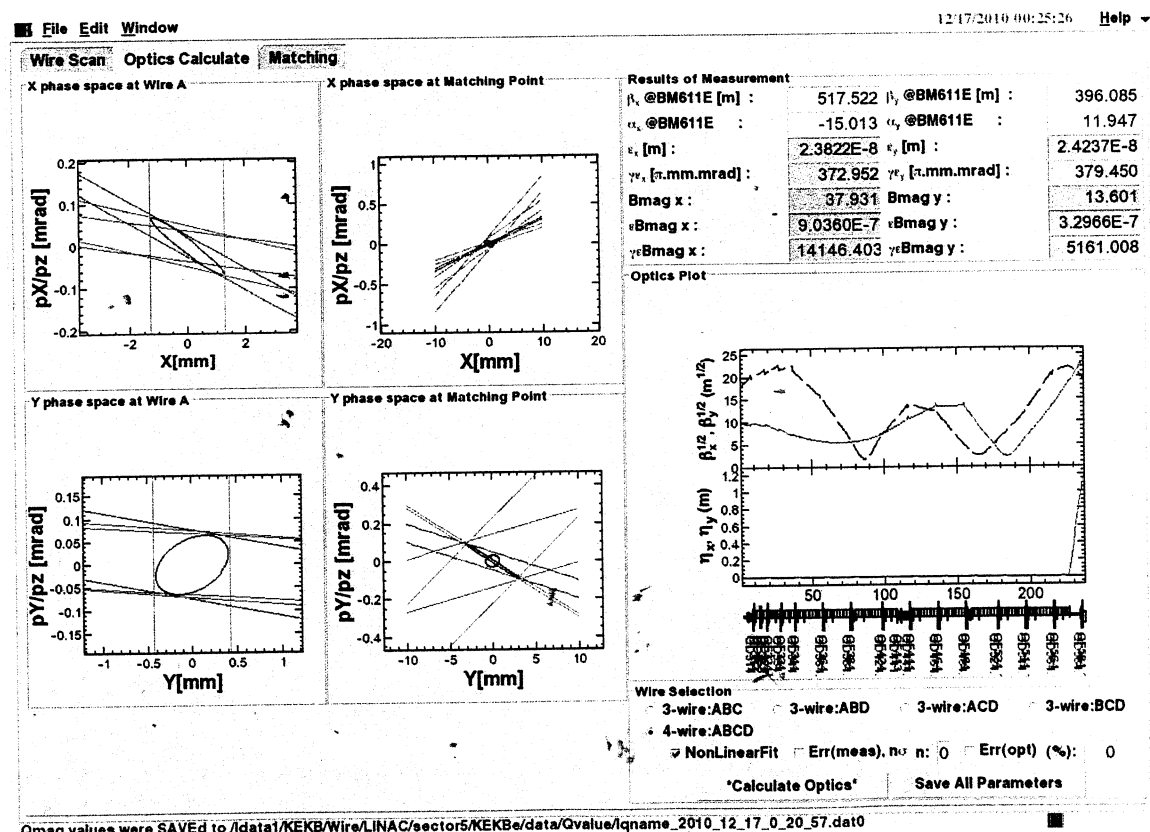
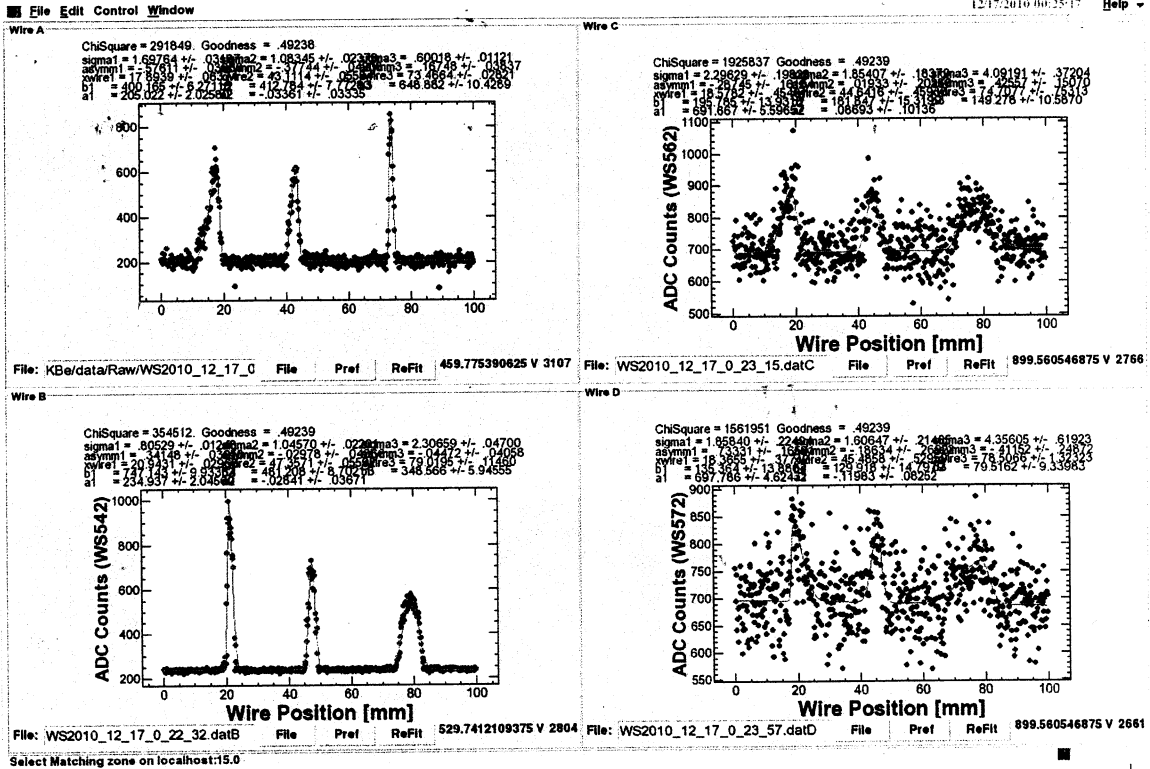
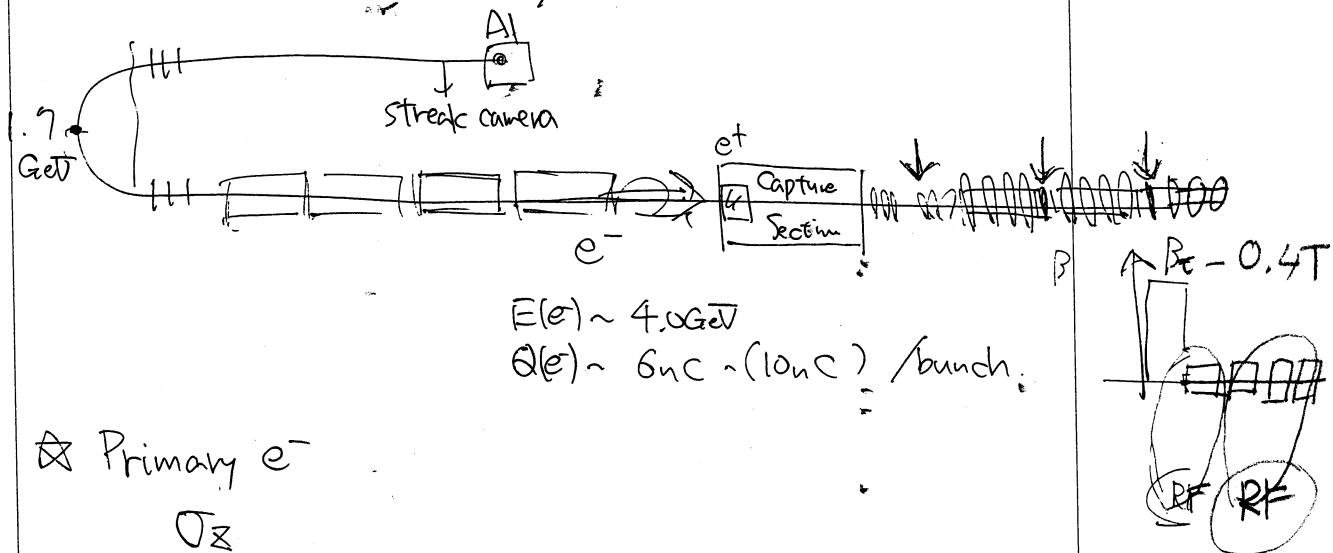


BT= data 5012.all \approx Load

kekbe-
Inc
5Hz
5E79



2010.12.20 e^+ QWT Beam Study



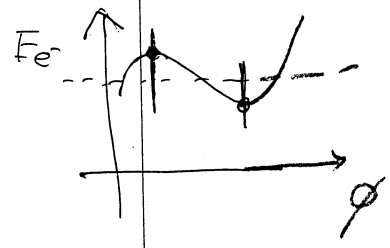
$E(e^-) \sim 4.0 \text{ GeV}$
 $Q(e^-) \sim 6 \text{ nC} \sim (10 \text{ nC}) / \text{bunch}$

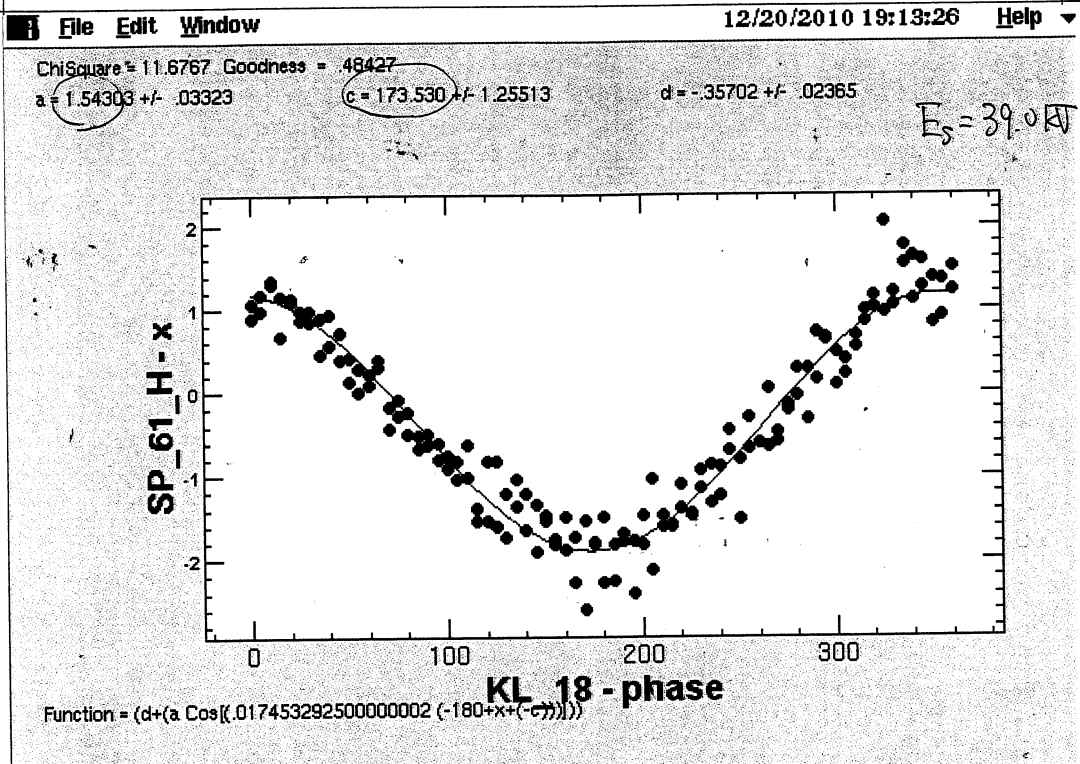
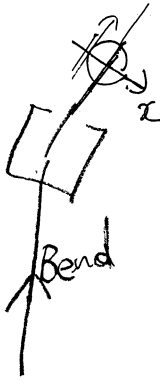
★ Primary e^-

- σ_z
- ϵ
- $\sigma E/E$
- $\sigma_{x,y}$ @ target.

⊗ e^+ $Y(e^+)$ dependence upon ---

- x, y @ target.
- $\sigma_{x,y}$ @ "
- B_c
- B_f
- $E_{acc 1,2}$
- $\phi_{acc 1,2}$
- Timing of B_c
- Timing of $R_{f acc}$



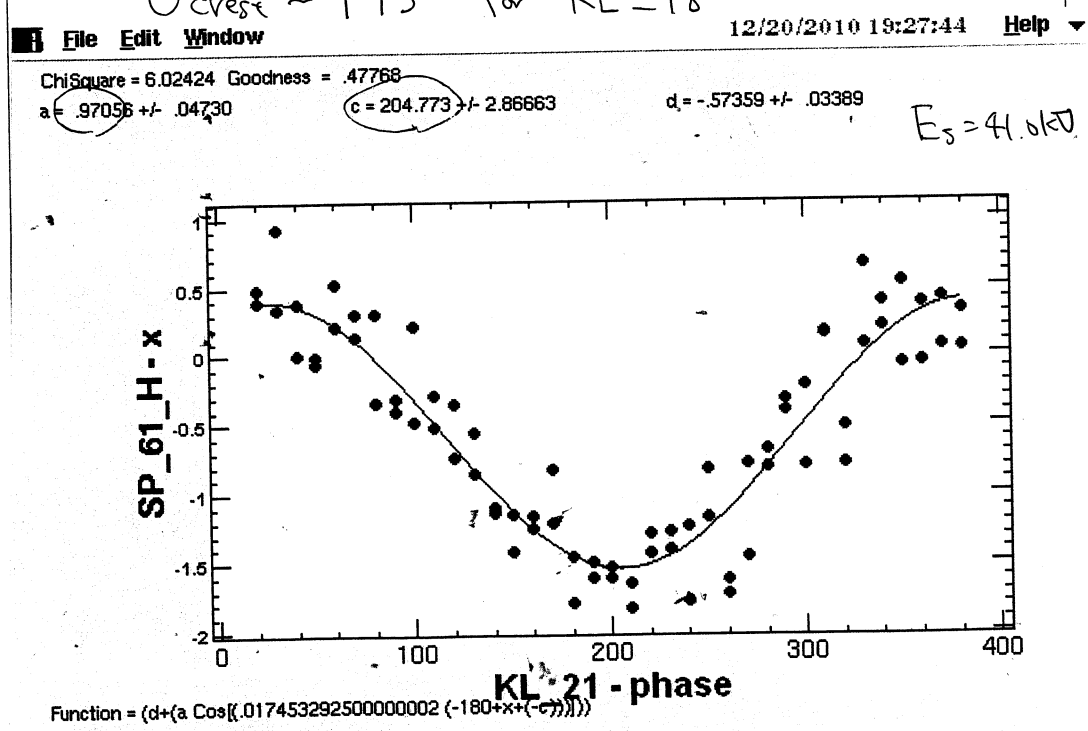


KL 18vsSP 61 H on 172.19.66.32:3.0

$$\frac{1.54 \text{ mm}}{331 \text{ mm}} \times 8000 \text{ MeV} = 37.2 \text{ MeV}$$

$$\sim E_{acc} \sim 9.3 \text{ MV/m}$$

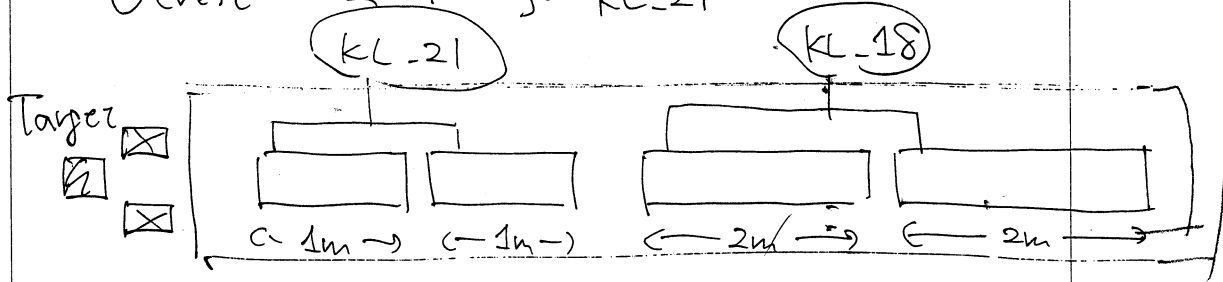
$$\theta_{crest} \sim 173^\circ \text{ for KL-18}$$



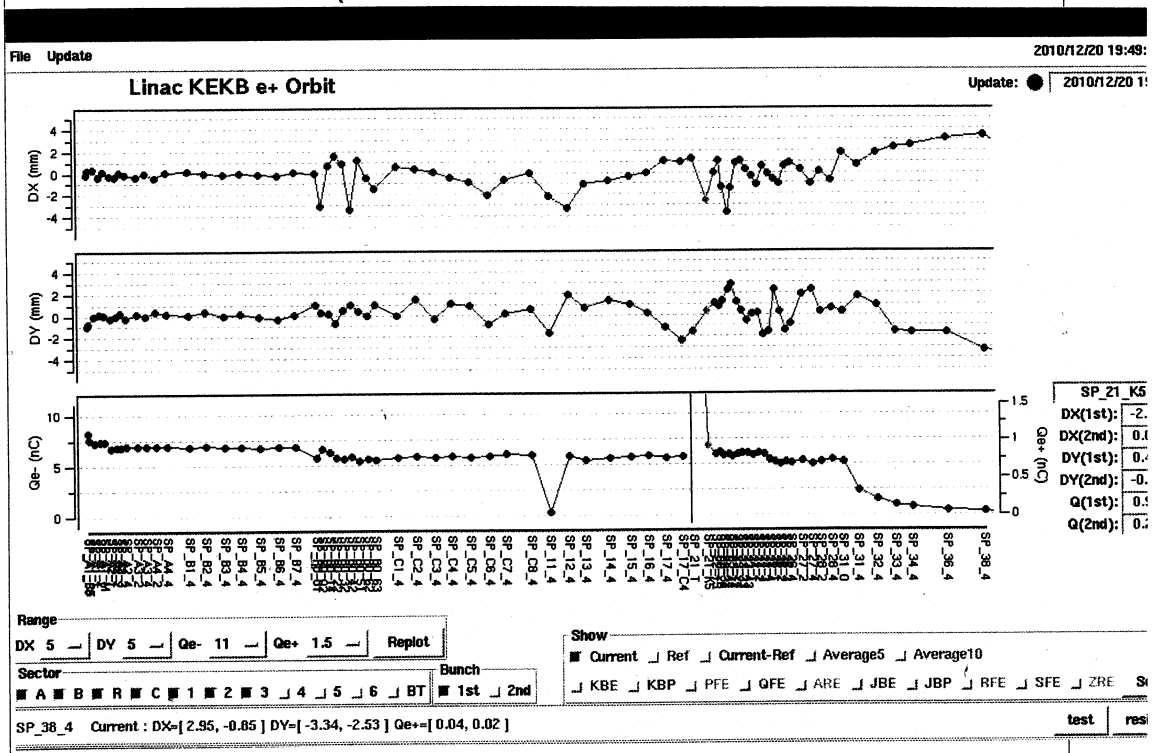
KL 21 vs SP 61 H on 172.19.66.32:3.0

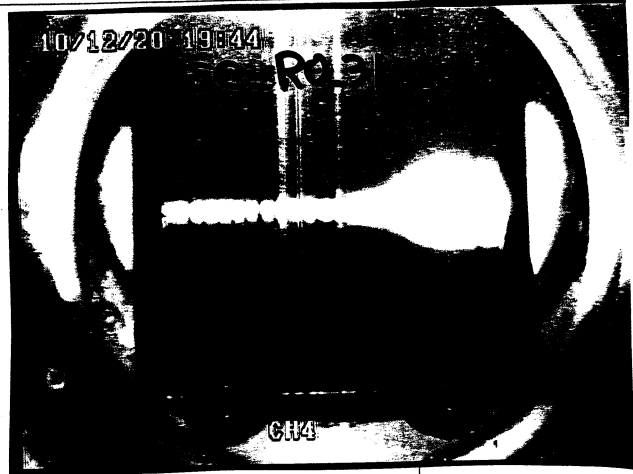
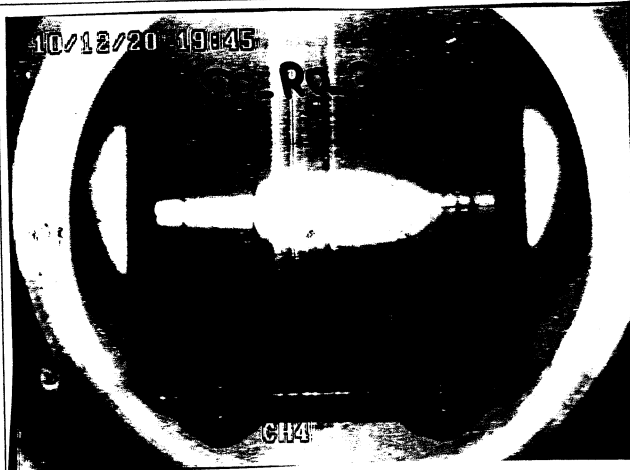
$$\frac{0.97 \text{ mm}}{331 \text{ mm}} \times 8000 \text{ MeV} = 23.4 \text{ MeV}$$

$$\Theta_{\text{crest}} = 204^\circ \text{ for } \text{KL-21} \quad E_{\text{acc}} \sim 11.7 \text{ MV/m}$$



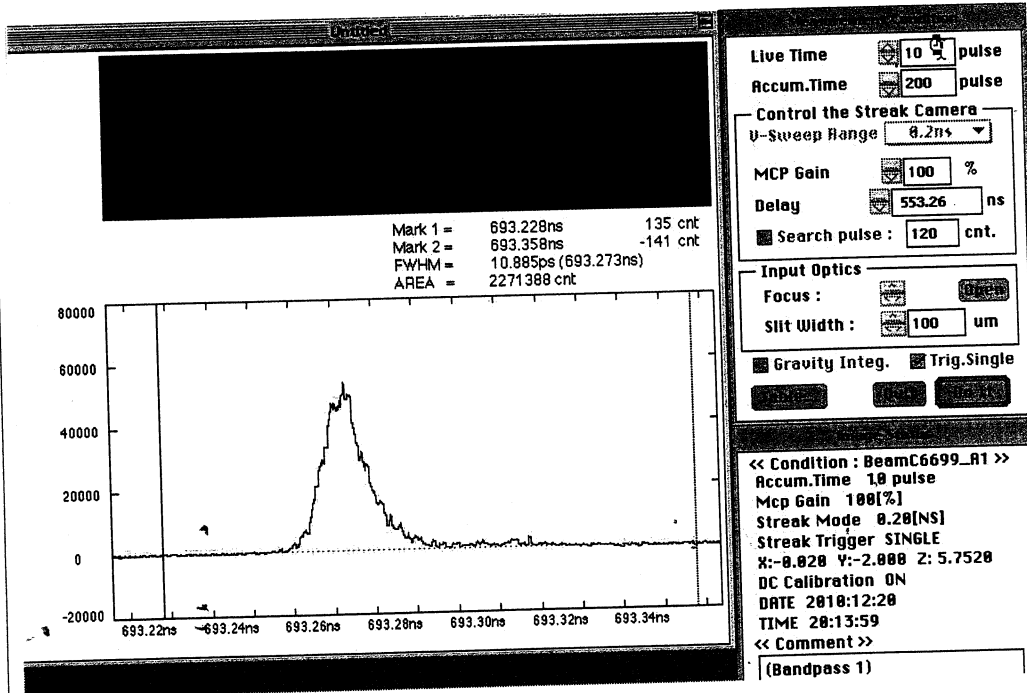
Beam orbit & Intensity



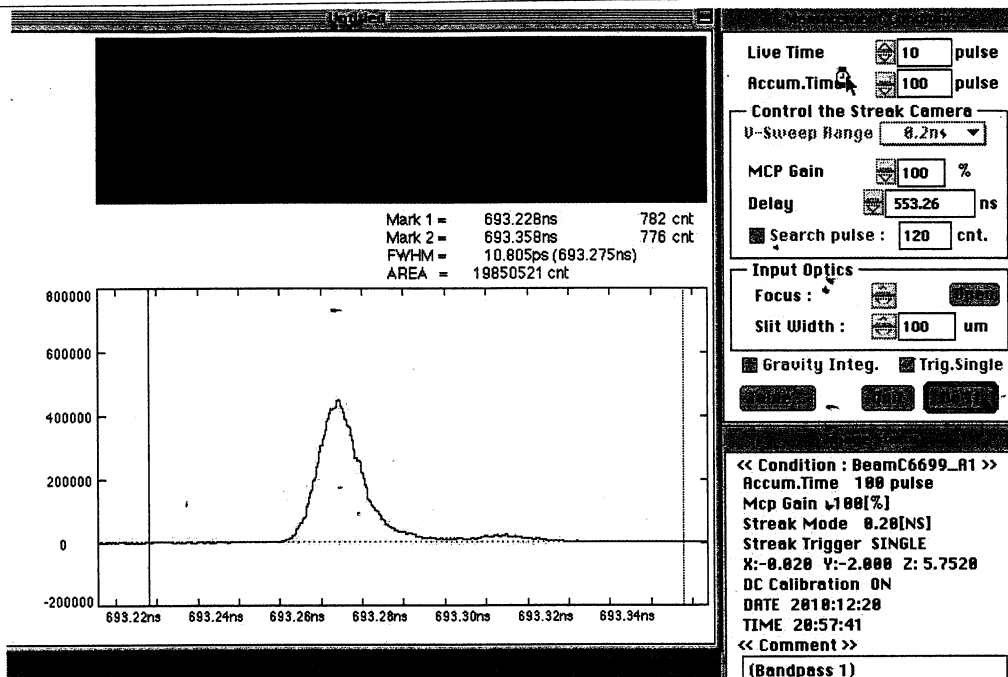


$D \sim 125 \text{ mm}$ $\Delta E \sim \frac{12 \text{ mm}}{125 \text{ mm}} \approx 1.65\%$

$\pm 1.4\%$



FWHM ~ 10.9 ps

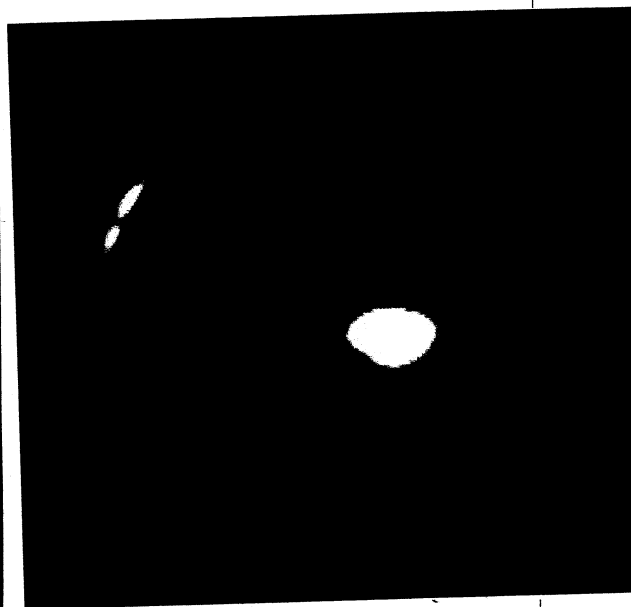


FWHM ~ 10.8 ps

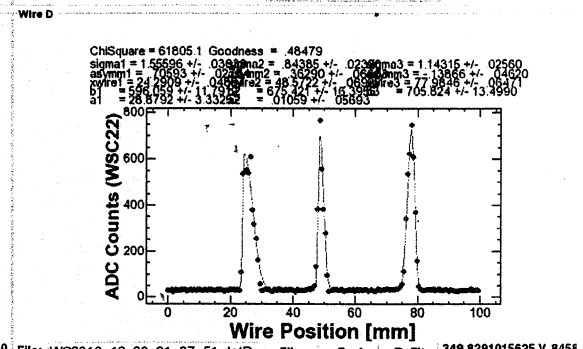
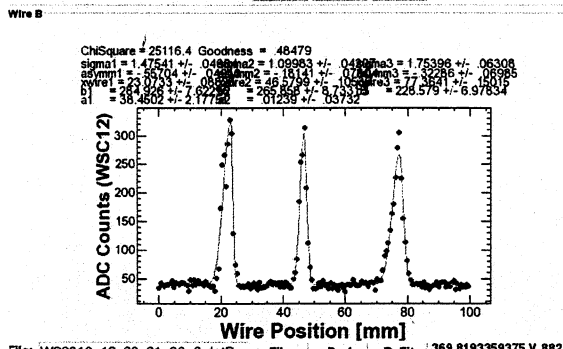
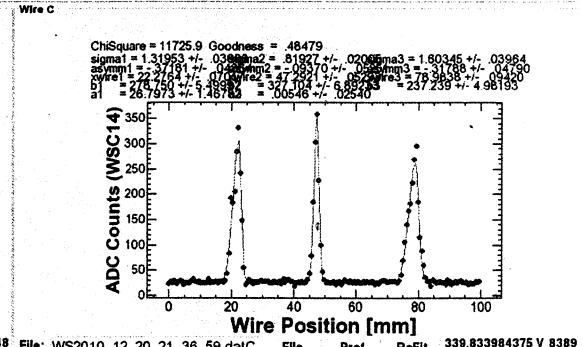
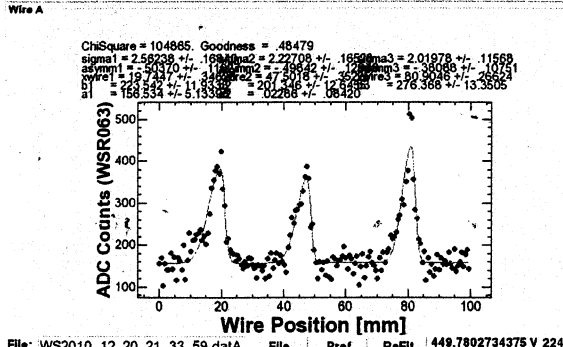


10x7

17-C5



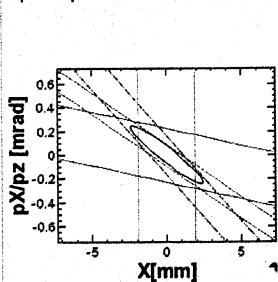
7x5



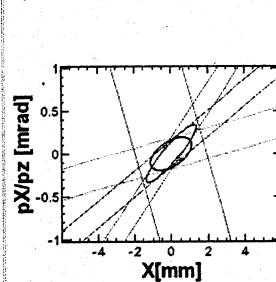
Select Matching zone on localhost:15.0

Wire Scan Optics Calculate Matching

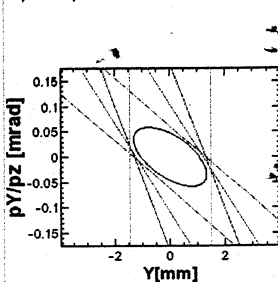
X phase space at Wire A



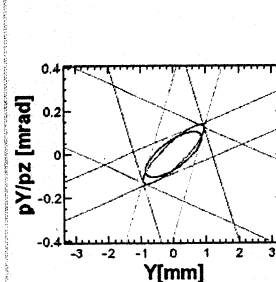
X phase space at Matching Point



Y phase space at Wire A



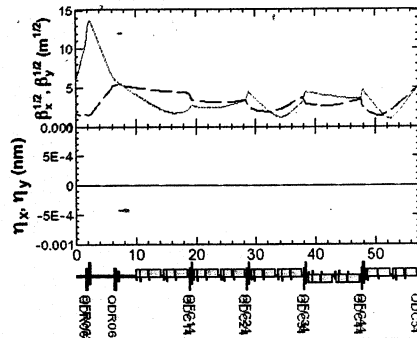
Y phase space at Matching Point



Results of Measurement

β_x @QDC34 [m] :	10.337	β_y @QDC34 [m] :	14.201
α_x @QDC34 :	-2.353	α_y @QDC34 :	-1.790
ϵ_x [m] :	1.8127E-7	ϵ_y [m] :	6.1813E-8
γ_x [π.mm.mrad] :	789.665	γ_y [π.mm.mrad] :	269.282
Bmag x :	1.730	Bmag y :	1.138
γ Bmag x :	3.1352E-7	γ Bmag y :	7.0344E-8
γ Bmag x :	1365.801	γ Bmag y :	306.443

Optics Plot



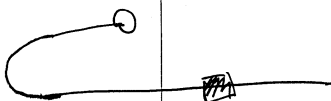
Wire Selection

- 3-wire:ABC
 - 3-wire:ABD
 - 3-wire:ACD
 - 3-wire:BCD
 - 4-wire:ABCD
- NonLinearFit Err(meas), n: 0 Err(opt) (%): 0

Calculate Optics

Save All Parameters

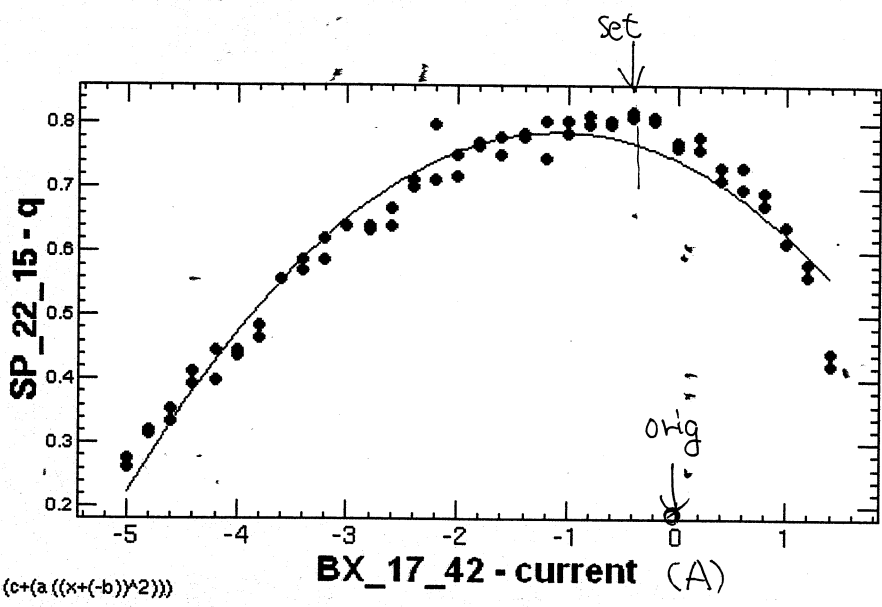
Qmag values were SAVED to /data1/KEKB/Wire/LINAC/sectorC/positron/data/Qvalue/qname_2010_12_20_21_33_20.dat0



750

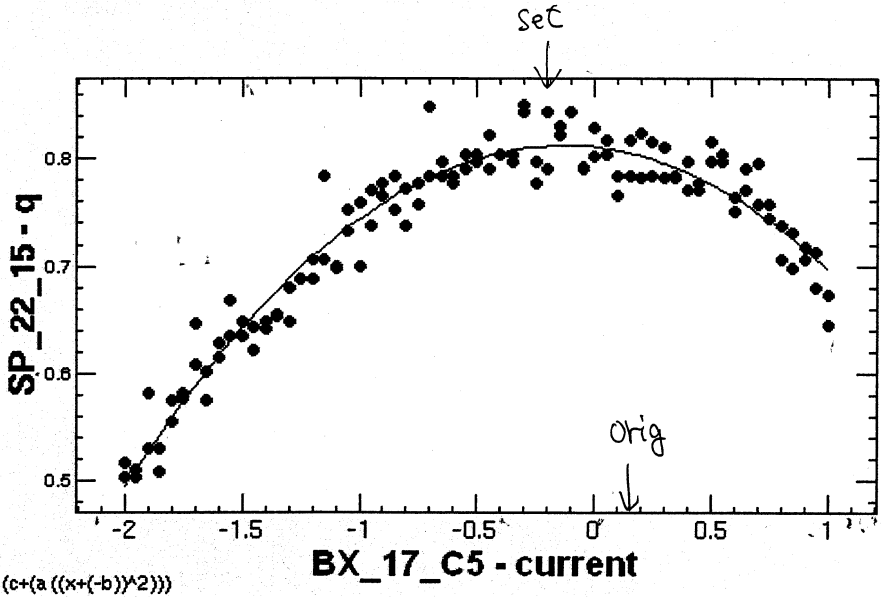
21:54

ChiSquare = .08915 Goodness = .47630
a = -.03681 +/- .00143 b = -1.0869 +/- .04309 c = .78638 +/- .00666



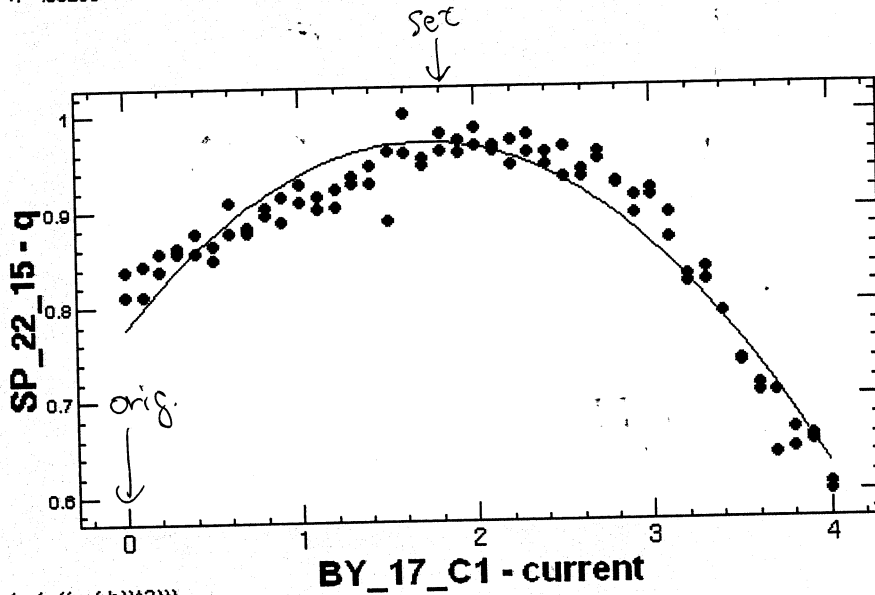
BX_17_42vsSP_22_15 on 172.19.66.33:1.0

ChiSquare = .06209 Goodness = .48276
a = -.09083 +/- .00298 b = -.13077 +/- .01773 c = .81231 +/- .00294



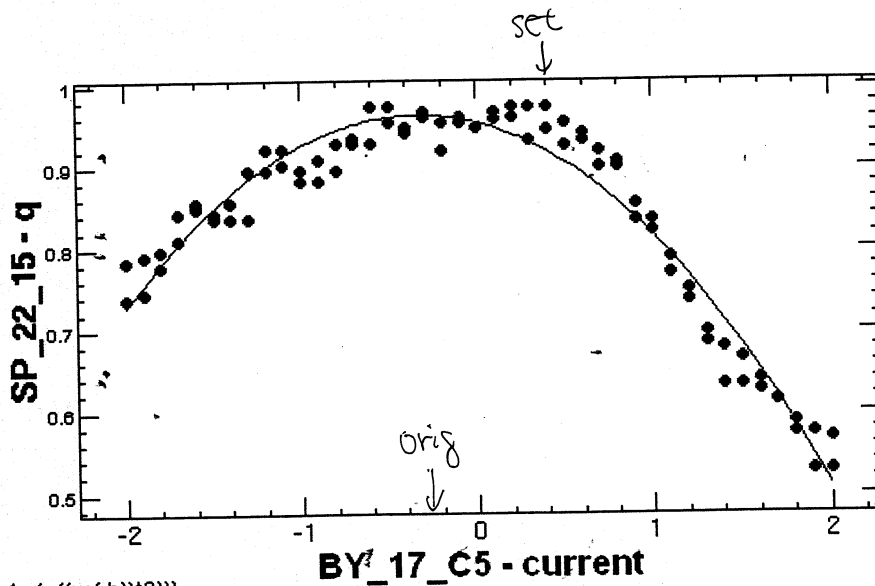
BX_17_C5vsSP_22_15 on 172.19.66.33:1.0

ChiSquare = .06772 Goodness = .47884
a = -.06591 +/- .00258 b = 1.71422 +/- .02357 c = .97094 +/- .00476

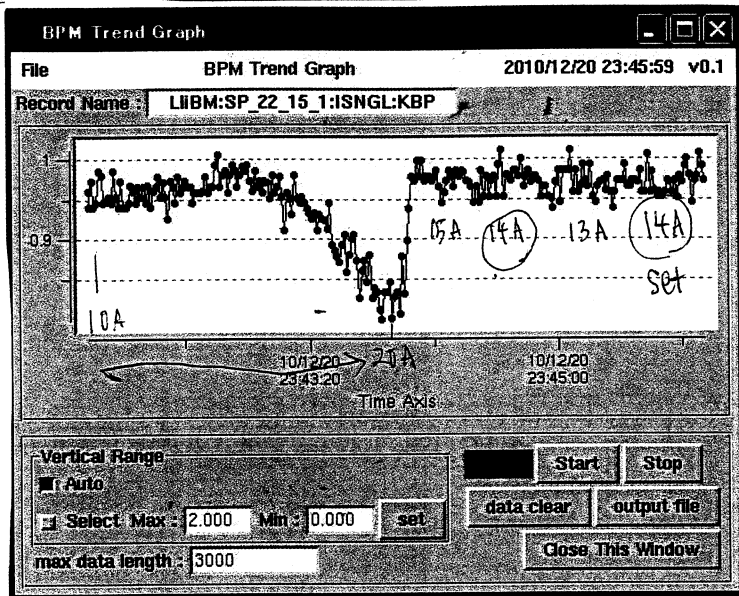


BY_17_C1vsSP_22_15 on 172.19.66.33:1.0

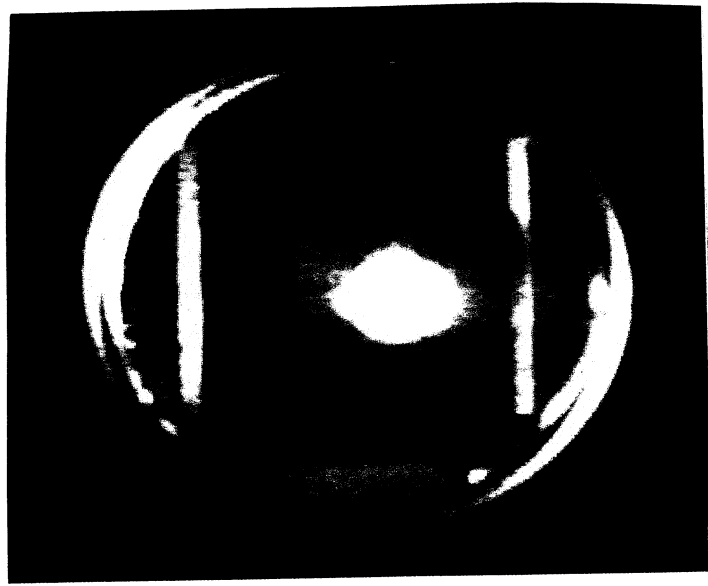
ChiSquare = .07139 Goodness = .47884
a = -.08364 +/- .00265 b = -.33297 +/- .01982 c = .96300 +/- .00486



BY_17_C5vsSP_22_15 on 172.19.66.33:1.0



QD-17-C9/5 13.335A
QF-17-C4/5 13.998A



17-c5

