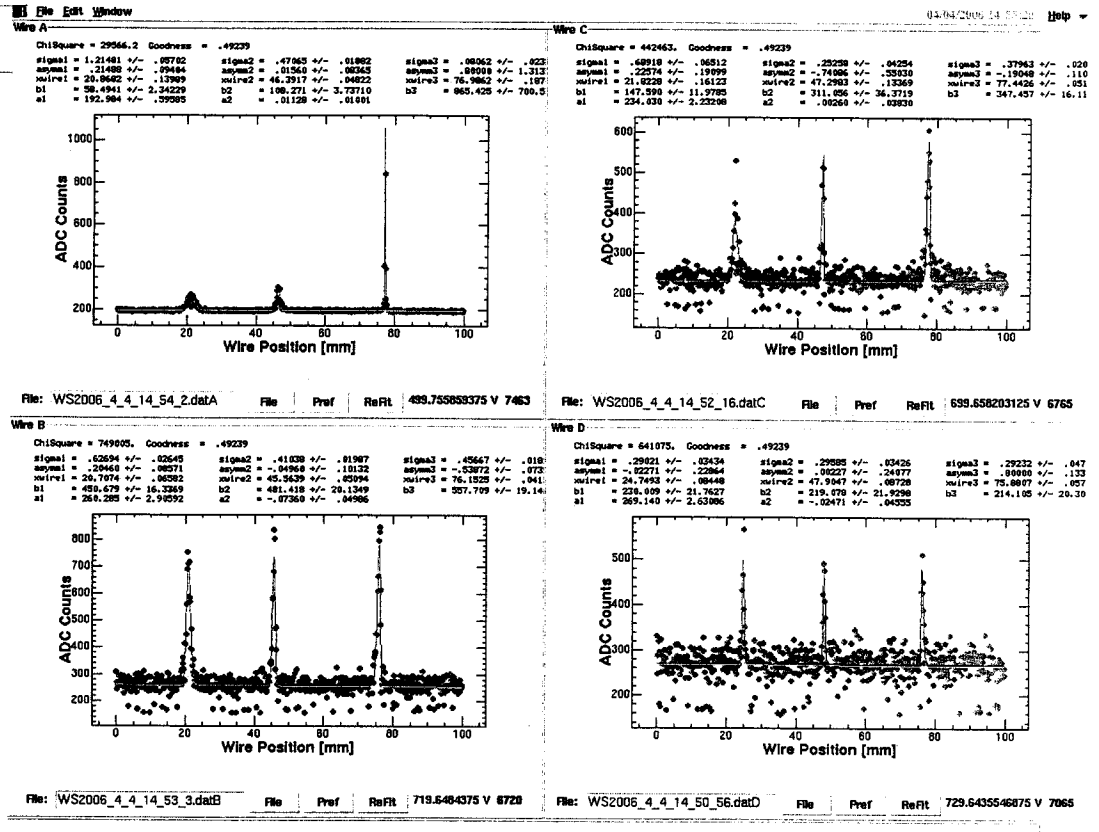
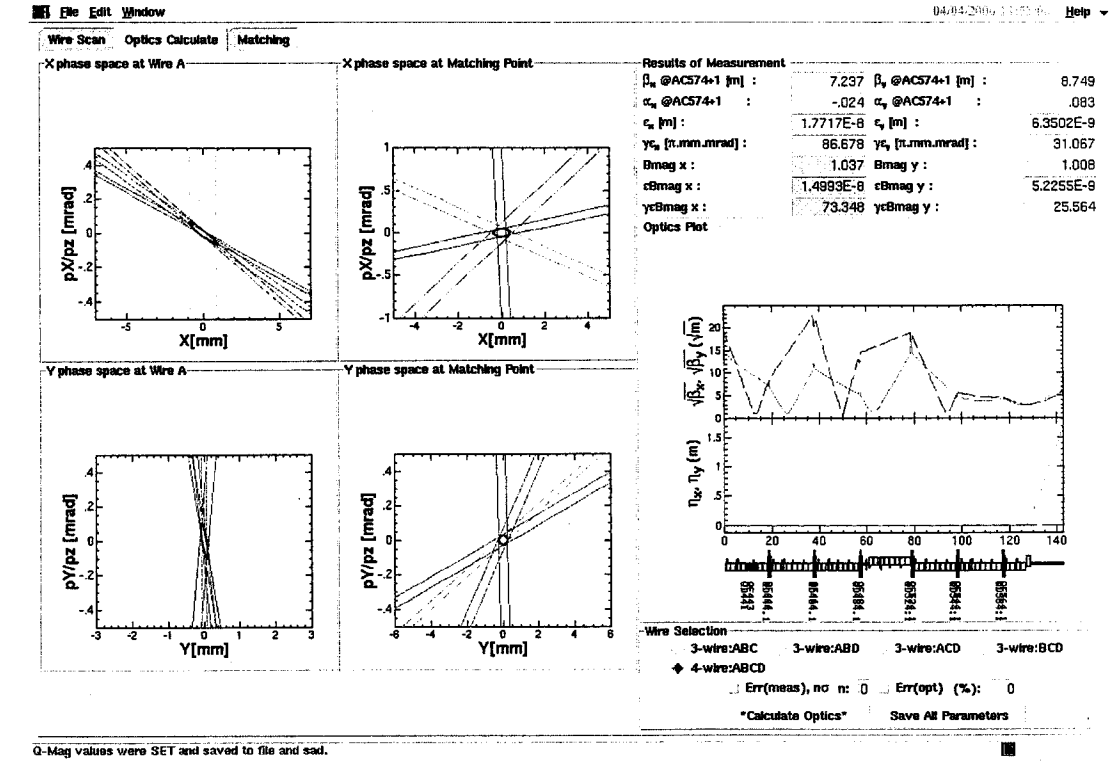

File Edit Window
Help
Wire A
ChiSquare = 29566.2 Goodness = .49239
Wire C
ChiSquare = 442463. Goodness = .49239
ADC Counts
Wire Position [mm]
File: WS2006_4_4_14_54_2.datA File Pref ReFit 499.755859375 V 7463
File: WS2006_4_4_14_52_16.datC File Pref ReFit 699.658203125 V 6765
Wire B
ChiSquare = 749005. Goodness = .49239
Wire D
ChiSquare = 641075. Goodness = .49239
File: WS2006_4_4_14_53_3.datB File Pref ReFit 719.6484375 V 6728
File: WS2006_4_4_14_50_56.datD File Pref ReFit 729.6435546875 V 7065


File Edit Window
Help
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
pX/pz [mrad]
X[mm]
pY/pz [mrad]
Y[mm]
Results of Measurement
βx @AC574+1 [m] : 7.237
βy @AC574+1 [m] : 8.749
αx @AC574+1 : -.024
αy @AC574+1 : .083
εx [m] : 1.7717E-8
εy [m] : 6.3502E-9
γεx [π.mm.mrad] : 86.678
γεy [π.mm.mrad] : 31.067
Bmag x : 1.037
Bmag y : 1.008
εBmag x : 1.4993E-8
εBmag y : 5.2255E-9
γεBmag x : 73.348
γεBmag y : 25.564
Optics Plot
Wire Selection
3-wire:ABC
3-wire:ABD
3-wire:ACD
3-wire:BCD
4-wire:ABCD
Err(meas), nσ n: 0
Err(opt) (%): 0
"Calculate Optics"
Save All Parameters
Q-Mag values were SET and saved to file and sad.

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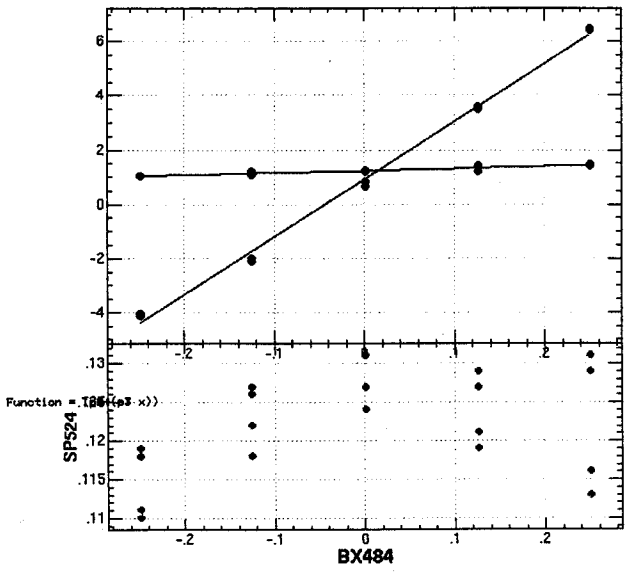
18:30 Steering response 測定 — 大西 —

File Edit Window 3/10 04/04/2006 18:49:19 Help

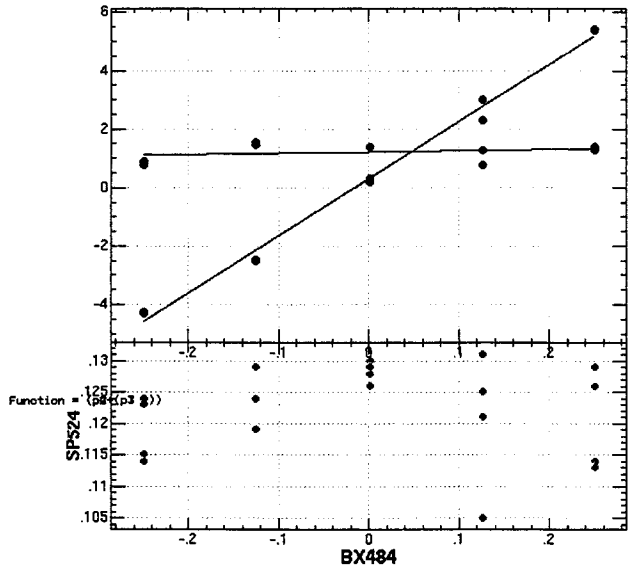


SX311	SY311	SP314		
SX321	SY321	SP324	Imin (A)	-1.861
SX331	SY331	SP334	I (A)	-.861
SX341	SY341	SP344	Imax (A)	.139
SX351	SY351	SP364	#step	5
SX371	SY371	SP384	Initialize	
BX384	BY384	SP424	Start	
SX431	SY431	SP444	Write	
SX451	SY451	SP464	Read	
SX471	SY471	SP484		
◆ BX484	BY484	◆ SP524	Str 3->0	
SX531	SY531	SP544	Str 3	
SX551	SY551	SP564		
SX571	SY571	SP584		

slop x =21.314091359133616+-.474970453869283 slop y =.805019112896229+-.118493765438167

$a_y = 0.805 \rightarrow 0.438$

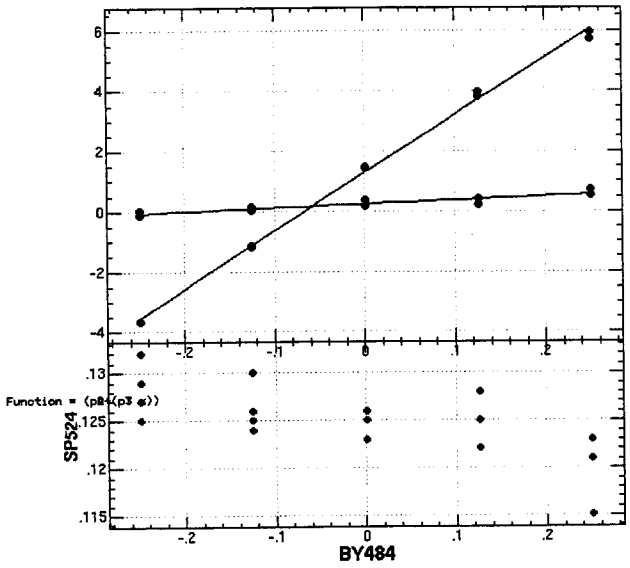
File Edit Window 4/4 04/04/2006 18:53:07 Help



SX311	SY311	SP314		
SX321	SY321	SP324	Imin (A)	-1.861
SX331	SY331	SP334	I (A)	-.861
SX341	SY341	SP344	Imax (A)	.139
SX351	SY351	SP364	#step	5
SX371	SY371	SP384	Initialize	
BX384	BY384	SP424	Start	
SX431	SY431	SP444	Write	
SX451	SY451	SP464	Read	
SX471	SY471	SP484		
◆ BX484	BY484	◆ SP524	Str 3->0	
SX531	SY531	SP544	Str 3	
SX551	SY551	SP564		
SX571	SY571	SP584		

slop x =19.620225603625581+-.563681116548535 slop y =.438018969996069+-.536935344145933

File Edit Window 3/10 04/04/2006 18:45:54 Help

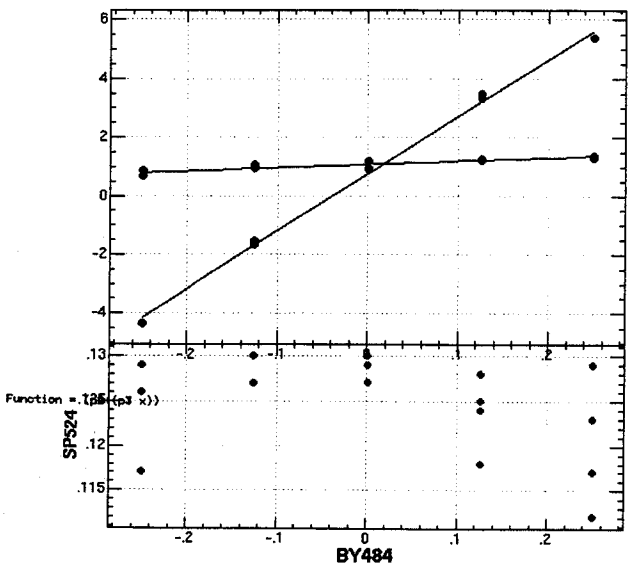


SX311	SY311	SP314		
SX321	SY321	SP324	Imin (A)	-1.861
SX331	SY331	SP334	I (A)	-.861
SX341	SY341	SP344	Imax (A)	.139
SX351	SY351	SP364	#step	5
SX371	SY371	SP384	Initialize	
BX384	BY384	SP424	Start	
SX431	SY431	SP444	Write	
SX451	SY451	SP464	Read	
SX471	SY471	SP484	Str 3->0	
◆ BX484	BY484	◆ SP524	Str 3	
SX531	SY531	SP544		
SX551	SY551	SP564		
SX571	SY571	SP584		

slop x =1.252675550293201+-.197533543145909 slop y =19.192164350493258+-.35986492562009

$a_2 = 1.25 \rightarrow 1.12.$

File Edit Window 4/4 04/04/2006 18:48:45 Help



SX311	SY311	SP314		
SX321	SY321	SP324	Imin (A)	-1.861
SX331	SY331	SP334	I (A)	-.861
SX341	SY341	SP344	Imax (A)	.139
SX351	SY351	SP364	#step	5
SX371	SY371	SP384	Initialize	
BX384	BY384	SP424	Start	
SX431	SY431	SP444	Write	
SX451	SY451	SP464	Read	
SX471	SY471	SP484	Str 3->0	
◆ BX484	BY484	◆ SP524	Str 3	
SX531	SY531	SP544		
SX551	SY551	SP564		
SX571	SY571	SP584		

slop x =1.1157778361853824+-.160218010853834 slop y =19.542637196911317+-.383199298778032

06/4/4 3-bunch study 吉田

~~本番~~ 19:00〜調整，作業

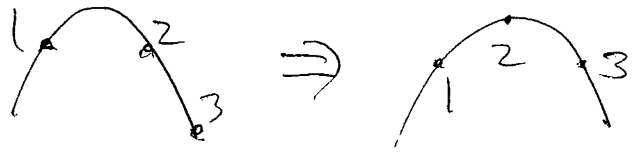
19:30〜23:45 3-bunch study

○3バンチをARCを通すと、2バンチ目がC-4辺りで減る

└→ QD_R0_63を1A弱めて解決

○3バンチ目のe+が2-6以降通らない問題

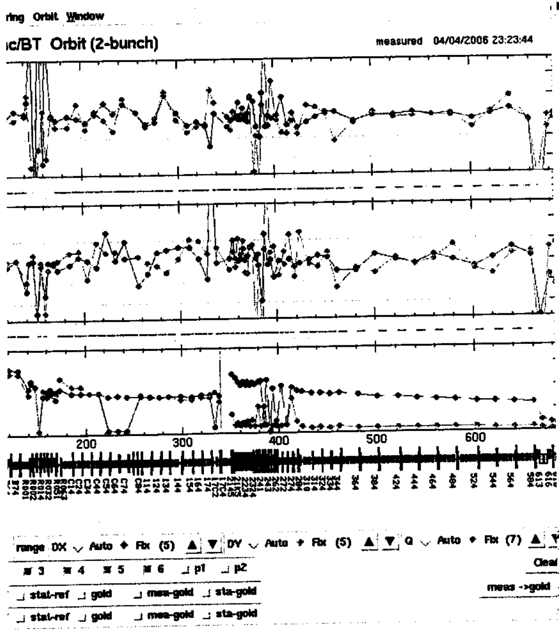
◎C〜5のOVERALLを48nsに

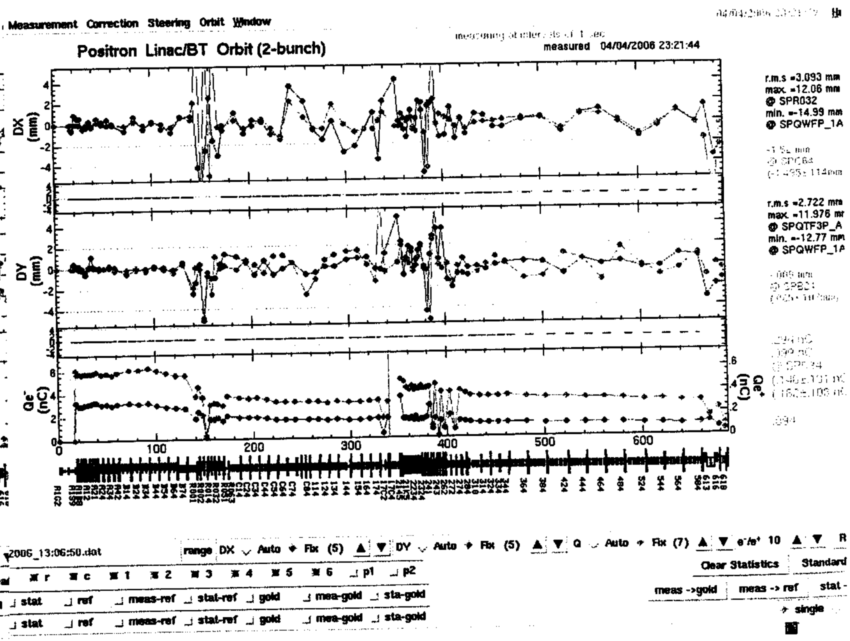


◎2-1のタイミング調整

1,2 bunch

2,3 bunch





2,3 bunch

1,2. bunch

KL_21_RF. 3bunch が増えるように調整.

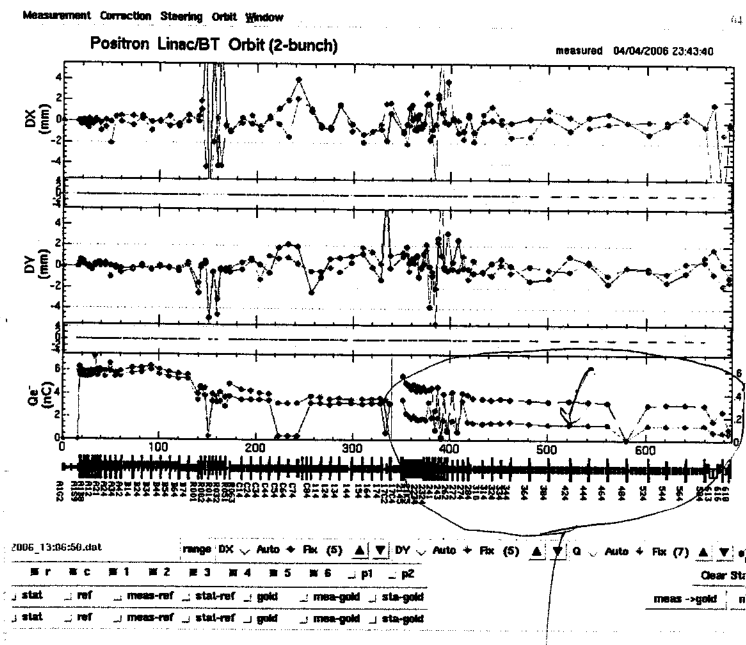
KL_21_RF 3bunch が増える

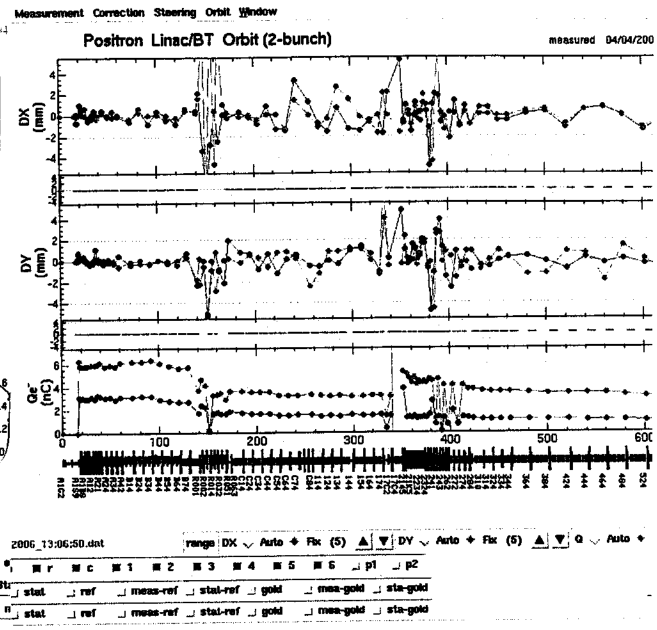
→1bunchのe+が通らない.

2-1 タイミング調整（再調整）で 1 bunch 目も解消増加に

1,2 bunch

2,3 bunch





1-bunch も
解消 復活.

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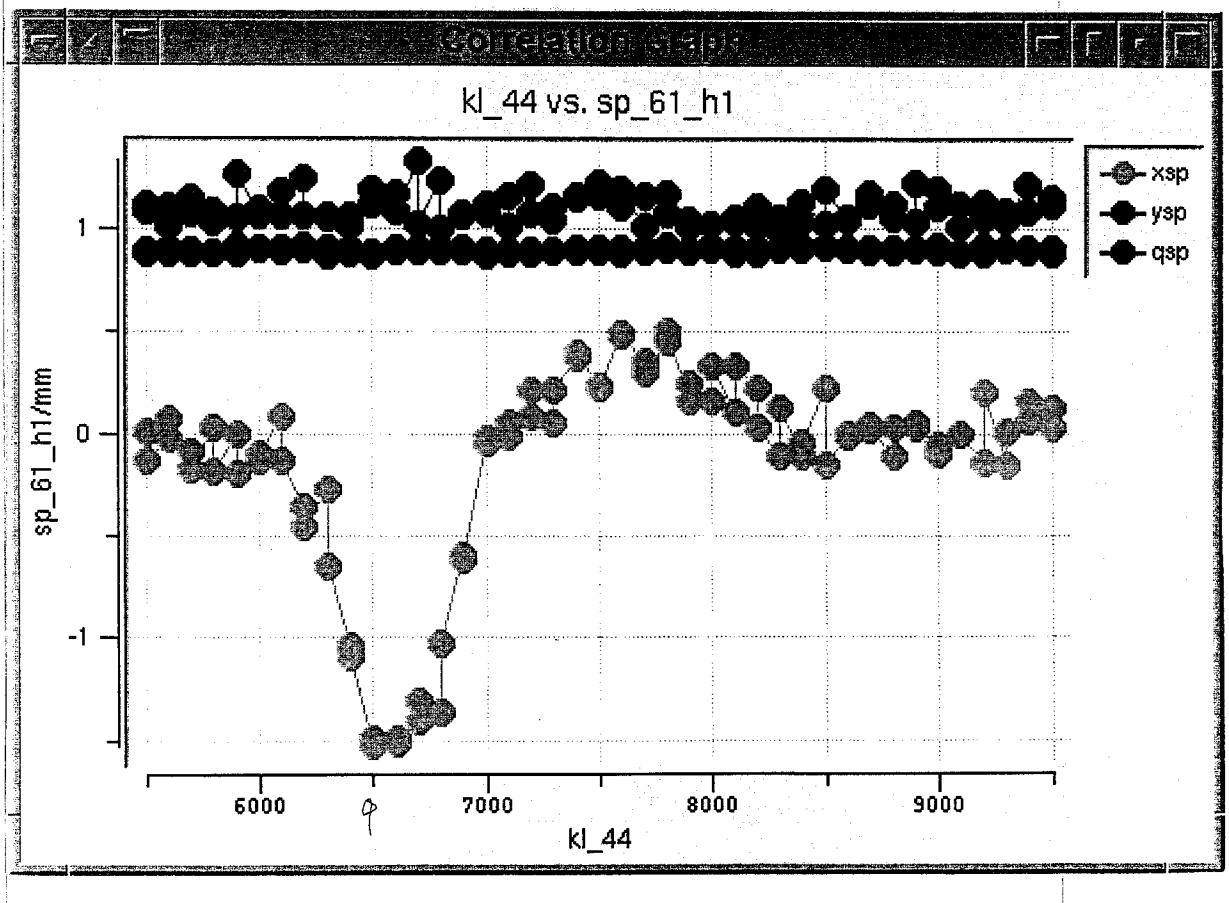
2006.4.5 4-4ユニットビームローディング測定の前のタイミング調整

delay-kl_44 = 6756 ns → Acc
STB

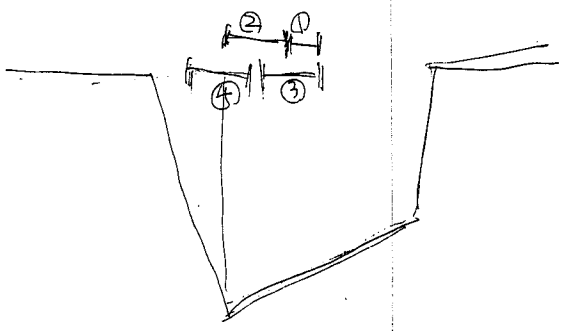
energy knob 7.8616 ⇒ x_sp_61_h1 = +2.4mm
7.9194 (read) +0.2mm

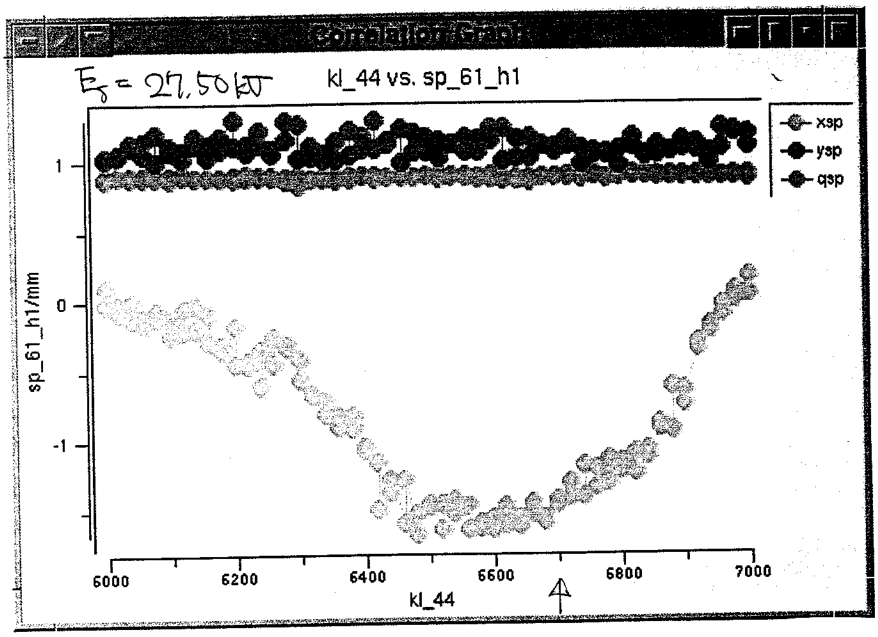
E_S = 27.460 kV Power計算値 = 10.8 MW. P_f = 8.4 8.1 MW, 6.2 MW)

4-4unit STD By ⇒ x_sp_61_h1 = +1.2mm @ knob = 7.9194
= 0.0 mm @ " = 7.9518



$$E = \frac{8.0 \times \text{BA}}{307.5}$$



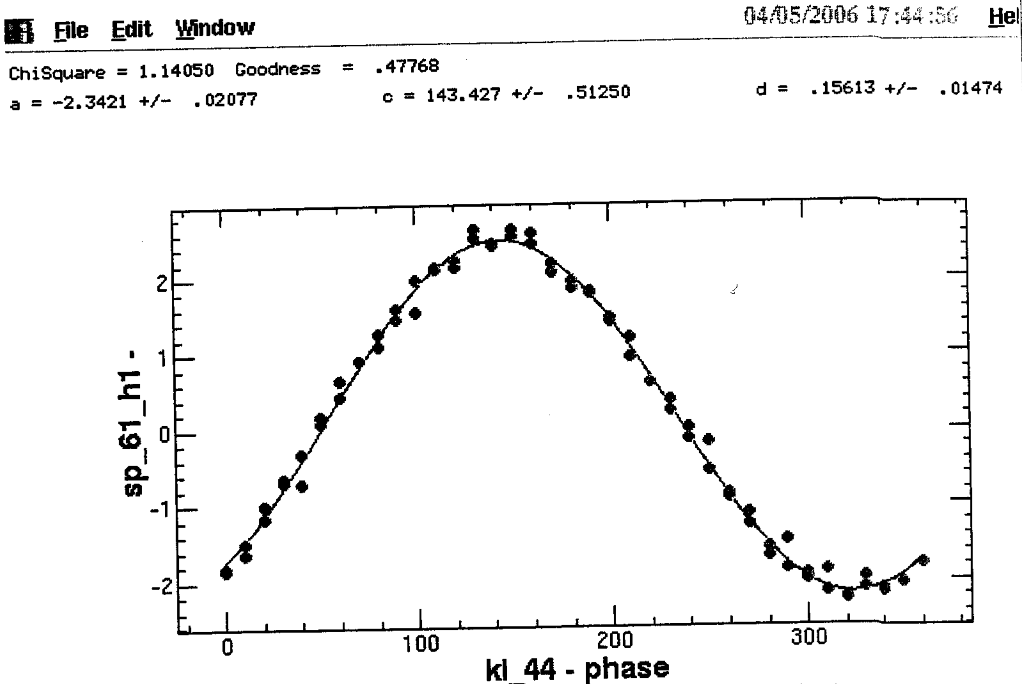


Power = 10.9 MW
P_f = 8.3
8.1

Gain
= 41.6 MeV
(但し位相はcrest
ではない)

KL_27 を ACC → STB に変更。 x sp_61_h1 = +6.4 mm 7.95
8.1

d delay_KL_44 = 6756 → 6700 ns に変更した。



A = +2.342mm → E_{gain} = 60.93 MeV

E_{field} = 15.8 MV/m

$\sqrt{\frac{40MV}{8.3MW}}$ = 2.20

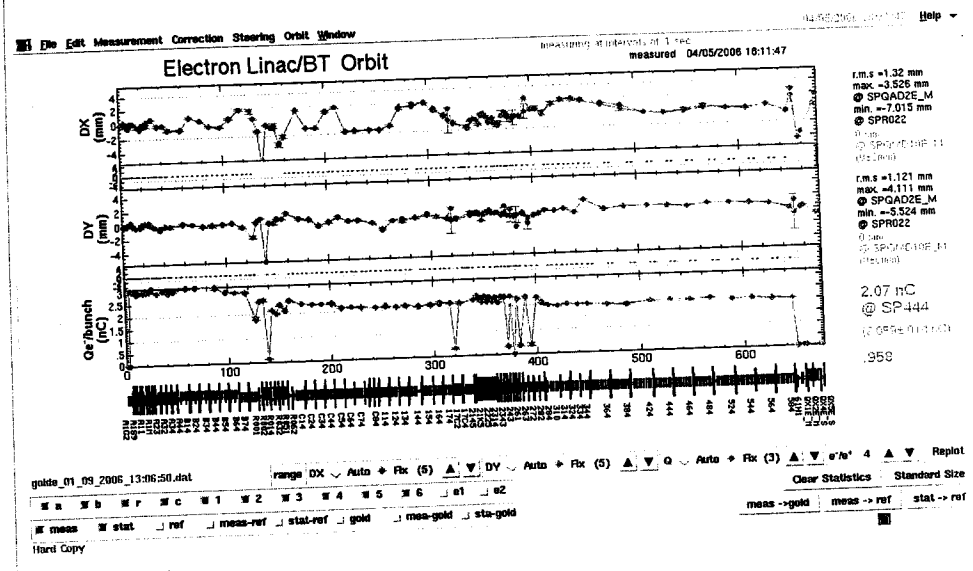
17:56 ECS off にして ストレートラインにおとす.

BS_GL_1 = 0 → − 0.999 A
BS_GL_6 = 0 → + 0.799 A

18:03 くり返しを 5Hz → 50Hz にした

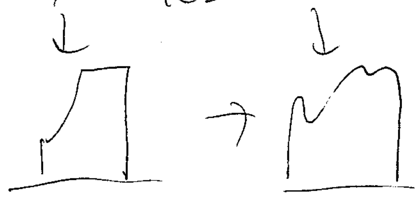
電子銃バイアスを調整 0.863 nC @SP44-4 0952 458.1V
2.02 0750 359.4V

Orbit PX_38_4 = −0.189 → + 0.113



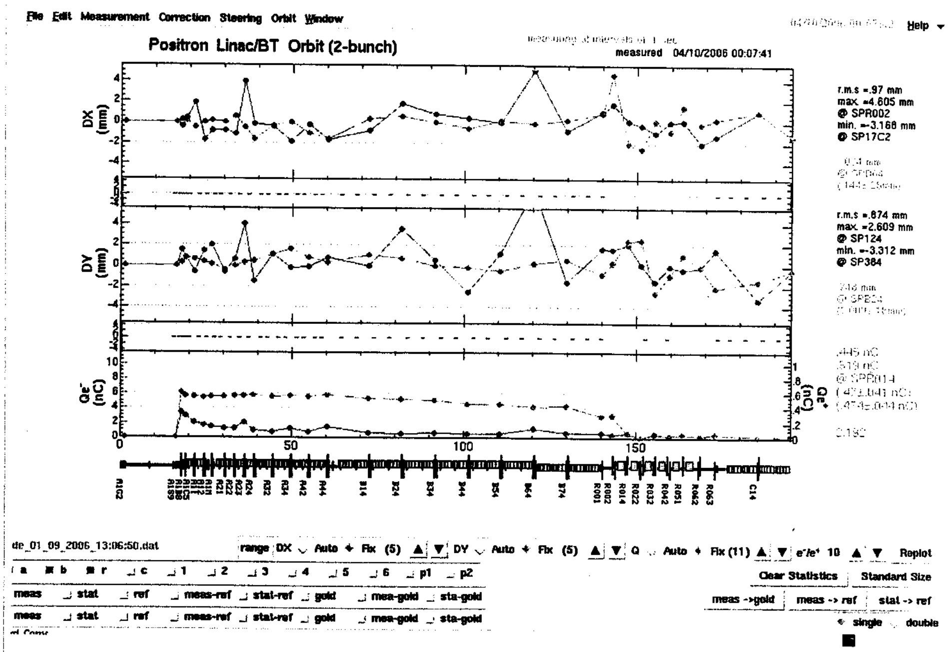
2006 4/9 18:30〜 多バンチ Study 吉田 (鈴木・野本) 深夜 早朝

波形は完全でないがとにかくBeamを出してみる。



J-ARCを1.0GeV, B-5, B-6 Standby

全体のQを×0.8



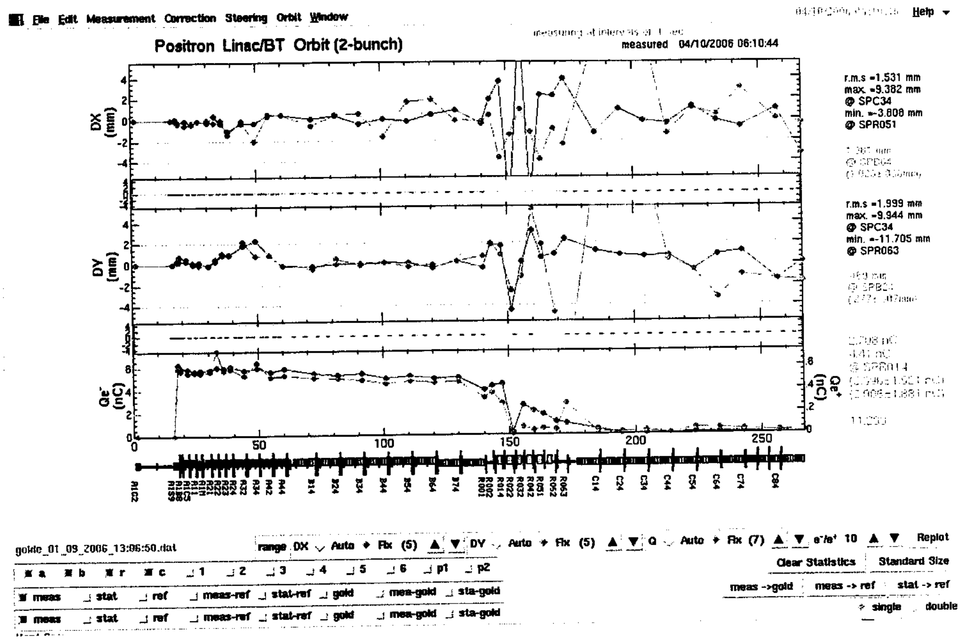
↳ ~~B-5, B-6~~

元々、5bunch用調整で 1200MeV
B-5, B-6 Stanby —250MeV
B-7 -40% —50MeV
900MeV

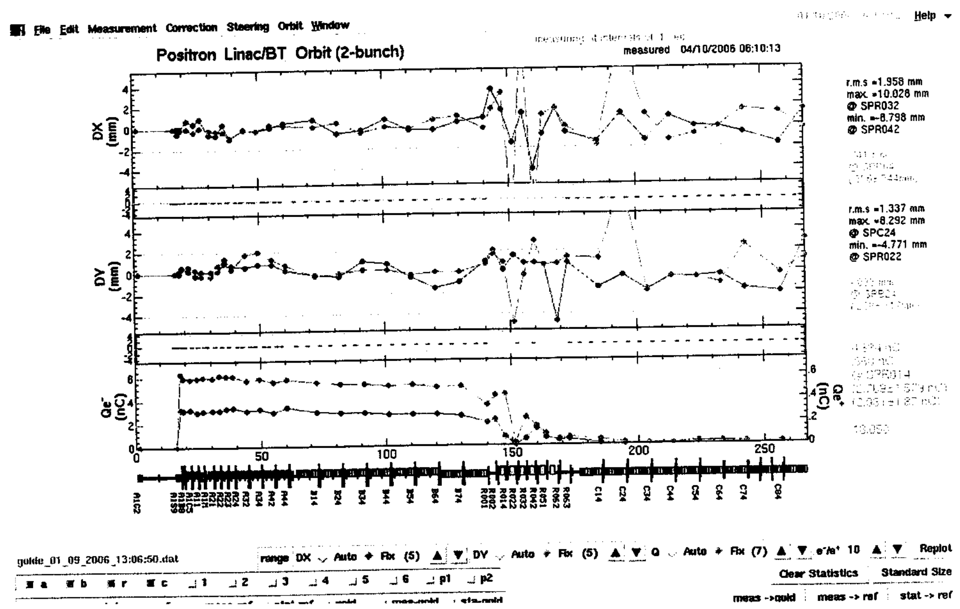
⇓

J-ARCを 800MeVにセット。
Qの調整等で、ARC通るように

1-bunch



2,3 bunch



Cセクターのスクリーンでは 3-bunch全て見えるが BPMおかしい。