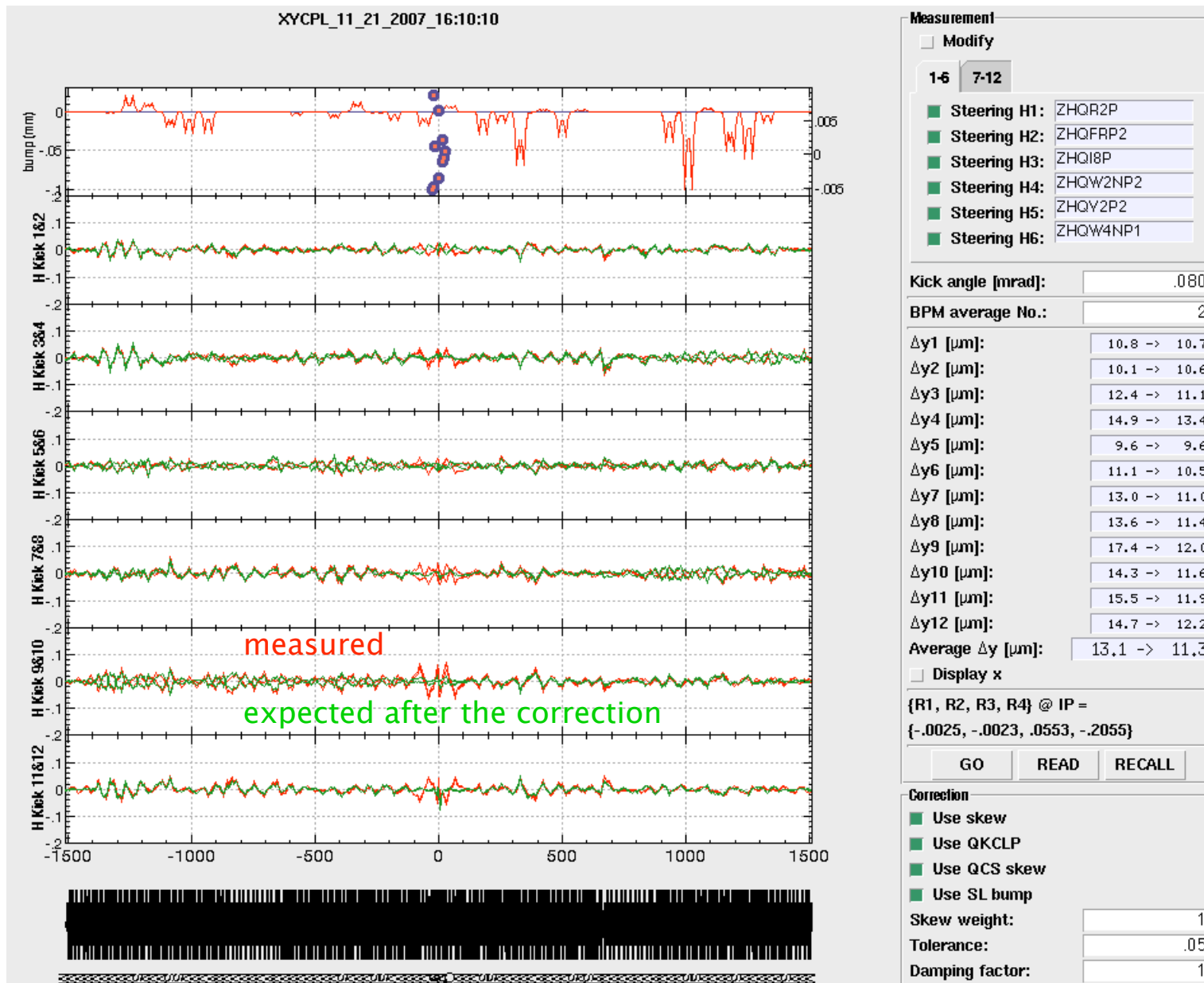
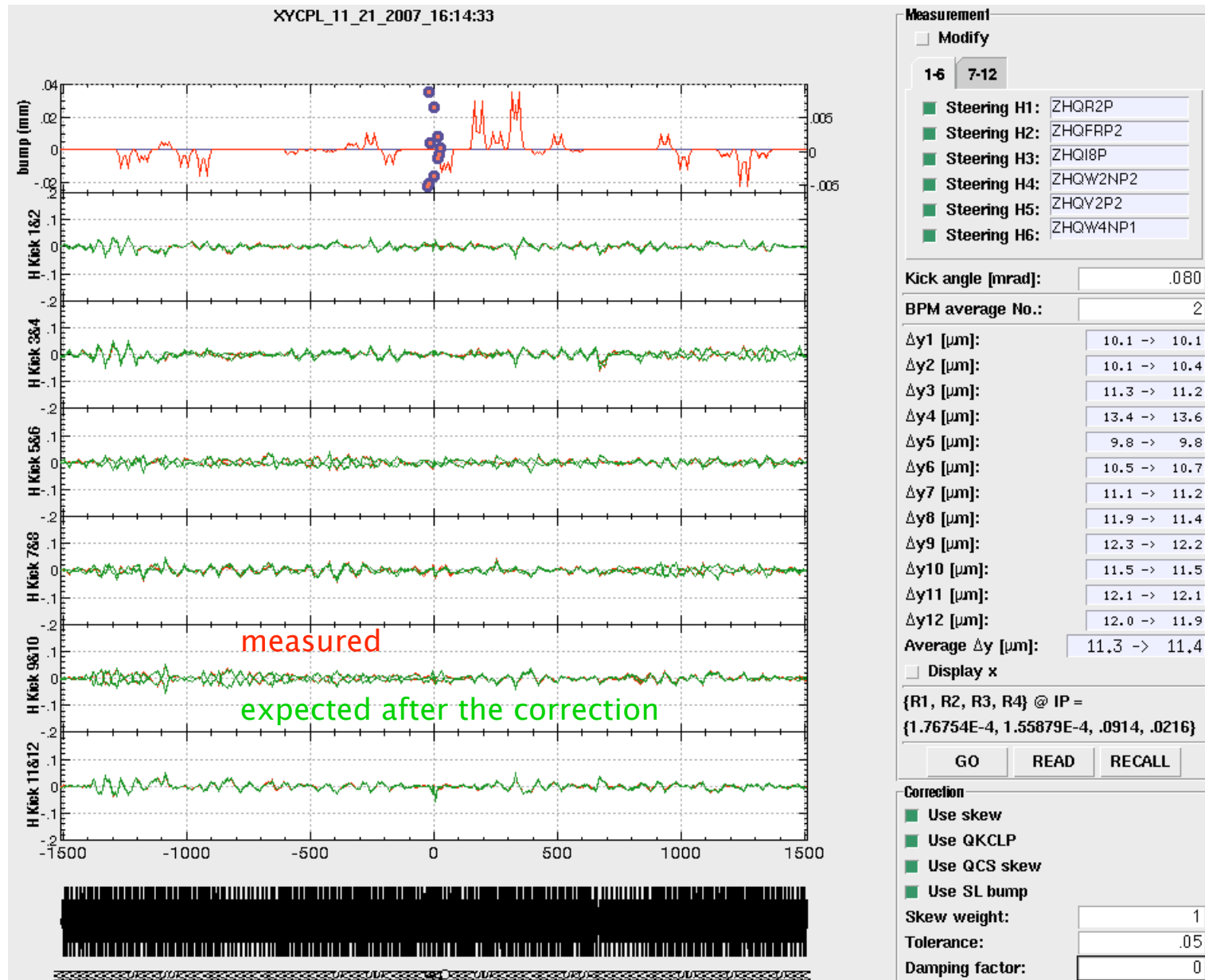


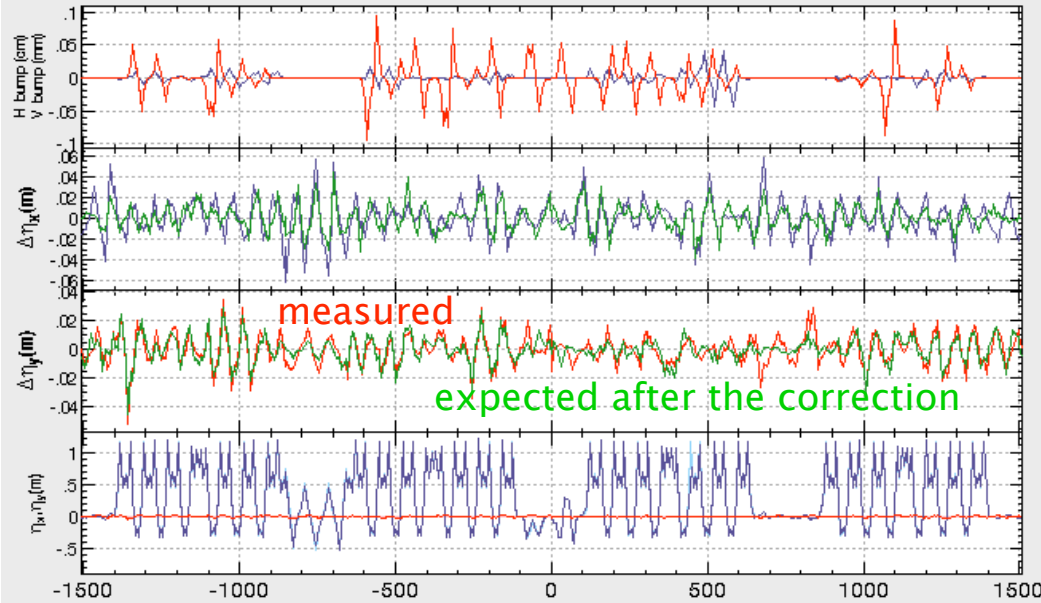
X-y coupling (LER 11/21)



X-y coupling (LER 11/21)



Dispersion (LER 11/21)



Control

Lower frequency [Hz]:

Upper frequency [Hz]:

Δf per step [Hz]:

BPM average No.:

Result

Δη threshold [m]:

Δη_x [mm]: ->

Δη_y [mm]: ->

η_x* [mm]: ->

η_x* [mrad]: ->

η_y* [mm]: ->

η_y* [mrad]: ->

Display H/V together

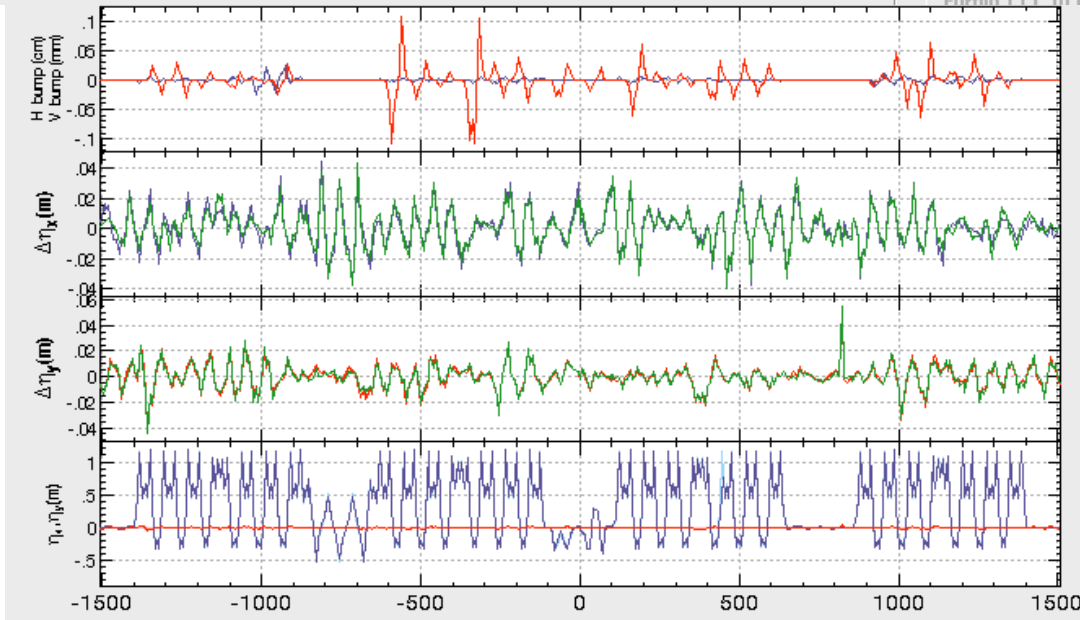
EX*
EPX*
EY*
EPY*

Correction

Axis:	Tolerance	Damping
Horizontal:	<input type="text" value=".1"/>	<input type="text" value="1"/>
Vertical:	<input type="text" value=".05"/>	<input type="text" value="1"/>

Allow CCC to change freq.

Forbid CCC to change freq.



Result

Δη threshold [m]:

Δη_x [mm]: ->

Δη_y [mm]: ->

η_x* [mm]: ->

η_x* [mrad]: ->

η_y* [mm]: ->

η_y* [mrad]: ->

Display H/V together

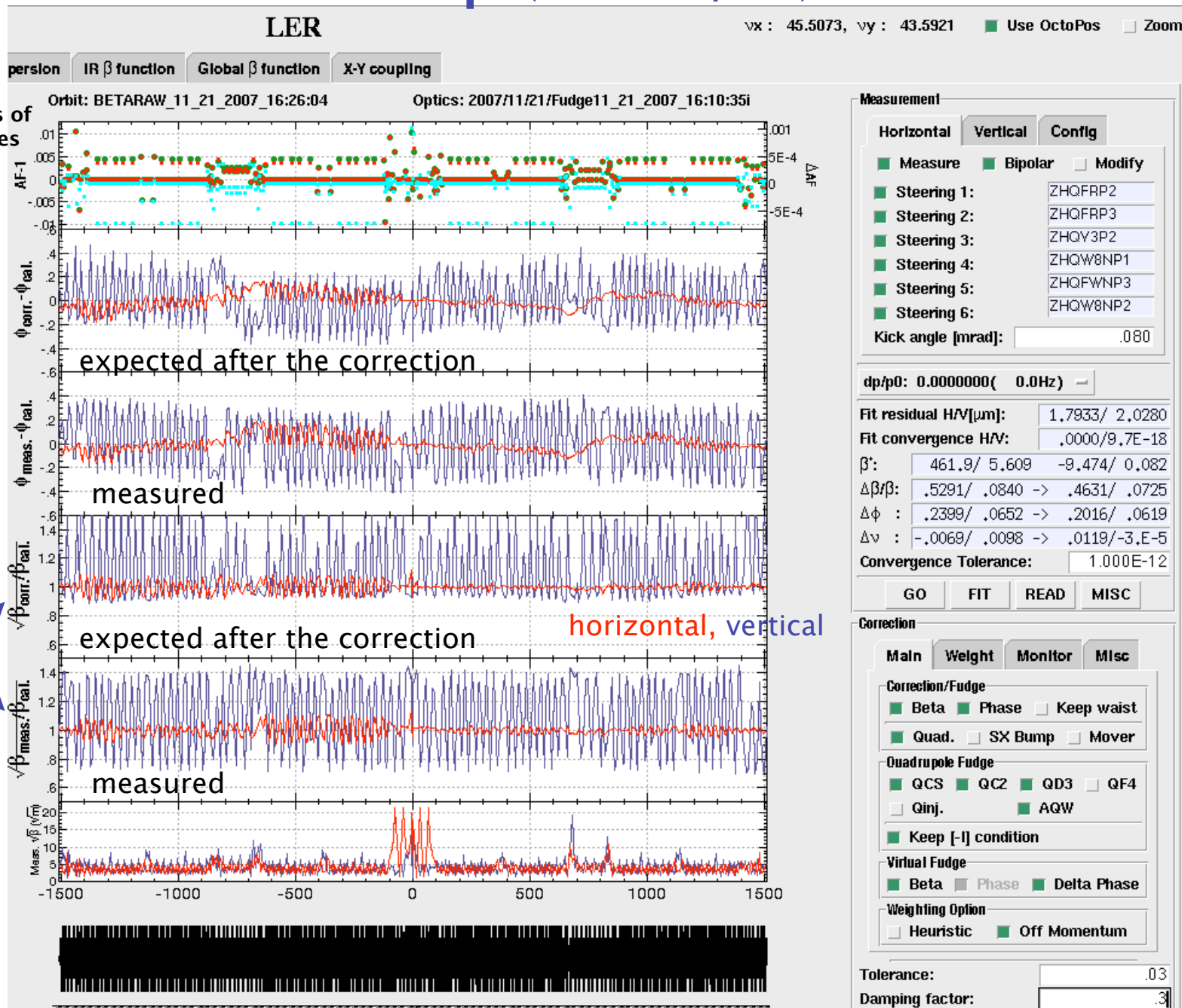
Correction

Axis:	Tolerance	Damping
Horizontal:	<input type="text" value=".1"/>	<input type="text" value="0"/>
Vertical:	<input type="text" value=".05"/>	<input type="text" value="0"/>

Allow CCC to change freq.

Forbid CCC to change freq.

Global β (LER 11/21)

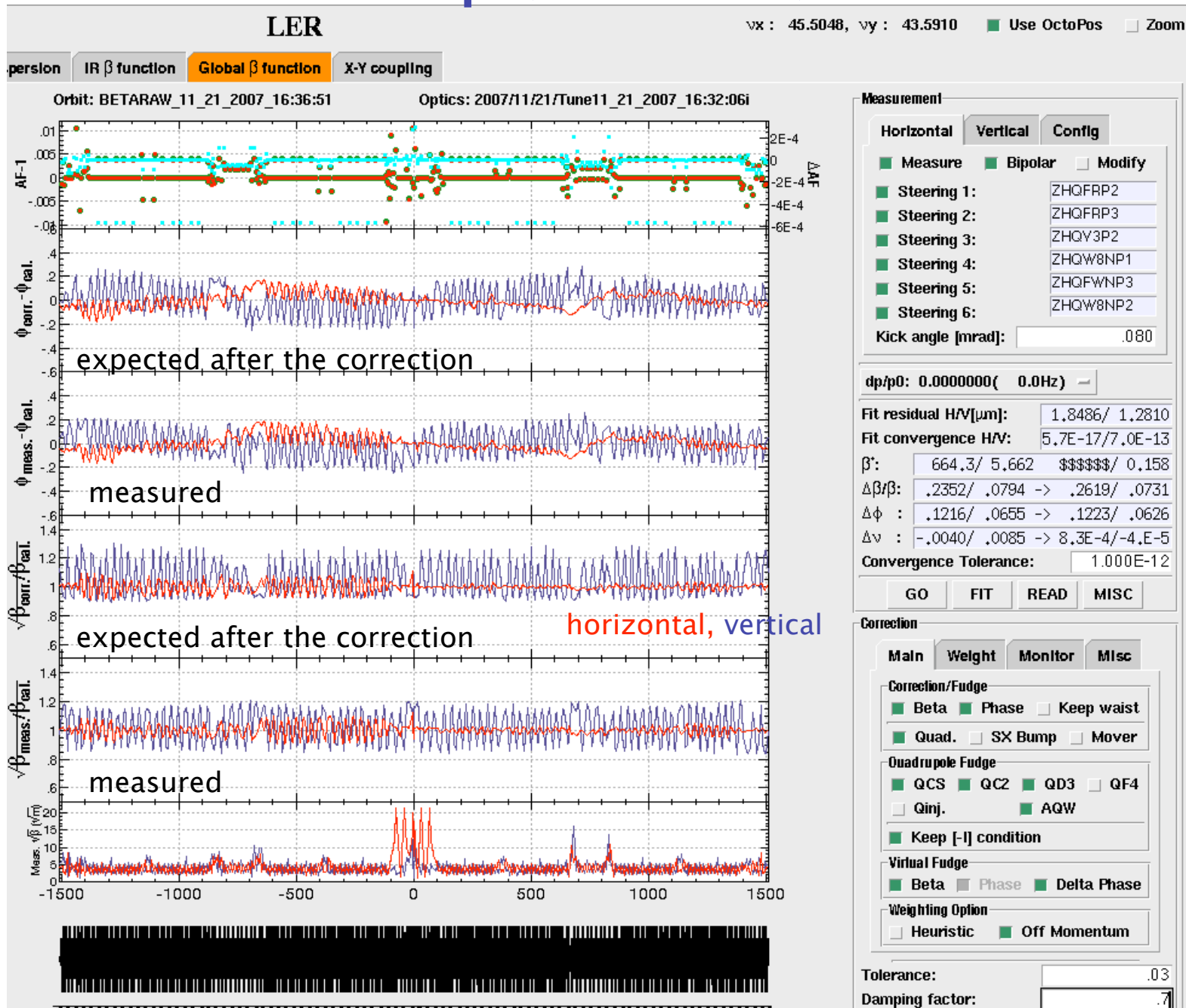


Fudge factors of power supplies of quads

ϕ

β

Global β (LER 11/21)



Global β (LER11/21)

LER vx : 45.5049, vy : 43.5894 Use OctoPos Zoom

perspersion **IR β function** Global β function X-Y coupling

Orbit: BETARAW_11_21_2007_16:51:12 Optics: 2007/11/21/Beta11_21_2007_16:46:44i

expected after the correction

measured

expected after the correction

horizontal, vertical

measured

Measurement

Horizontal Vertical **Config**

Measure Bipolar Modify

Steering 1: ZHQFRP2
 Steering 2: ZHQFRP3
 Steering 3: ZHQV3P2
 Steering 4: ZHQW8NP1
 Steering 5: ZHQFWNP3
 Steering 6: ZHQW8NP2

Kick angle [mrad]: .080

dp/p0: 0.000000(0.0Hz)

Fit residual H/V[μ m]: 1.8887/ 1.4961
 Fit convergence H/V: 2.3E-16/1.5E-13

β : 923.7/ 5.658 \$\$\$\$\$/ 0.378
 $\Delta\beta/\beta$: .0599/ .0783 -> .0289/ .0742
 $\Delta\phi$: .0554/ .0644 -> .0490/ .0621
 Δv : -4.E-4/1.6E-4 -> 1.0E-5/-9.E-6
 Convergence Tolerance: 1.000E-12

GO FIT READ MISC

Correction

Main Weight Monitor Misc

Correction/Fudge
 Beta Phase Keep waist
 Quad. SX Bump Mover

Quadrupole Fudge
 QCS QC2 QD3 QF4
 Qinj. AQW

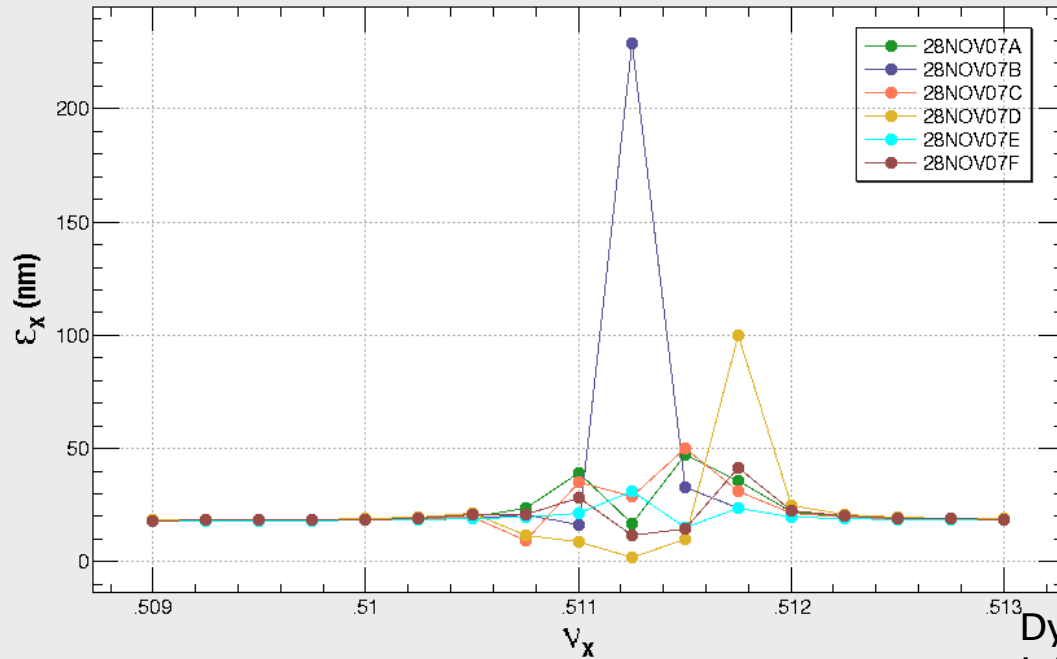
Keep [-I] condition

Virtual Fudge
 Beta Phase Delta Phase

Weighting Option
 Heuristic Off Momentum

Tolerance: .03
 Damping factor: 0

Anomalous Emittance, $v_s = .0230$



Estimation of dynamic aperture and emittance growth LER

Convergence = .13820

$v_x = 45.50521$ $v_y = 43.58920$
 $\beta_x = 1.00000$ m $\beta_y = .00590$ m

Dynamic Aperture Poincare Map Magnet

1 Done	071129-112010	2007/11/28NOV07A
2 Done	071129-112037	2007/11/28NOV07B
3 Done	071129-112057	2007/11/28NOV07C
4 Done	071129-112549	2007/11/28NOV07D
5 Done	071129-112600	2007/11/28NOV07E
6 Done	071129-125805	2007/11/28NOV07F

Survey Condition

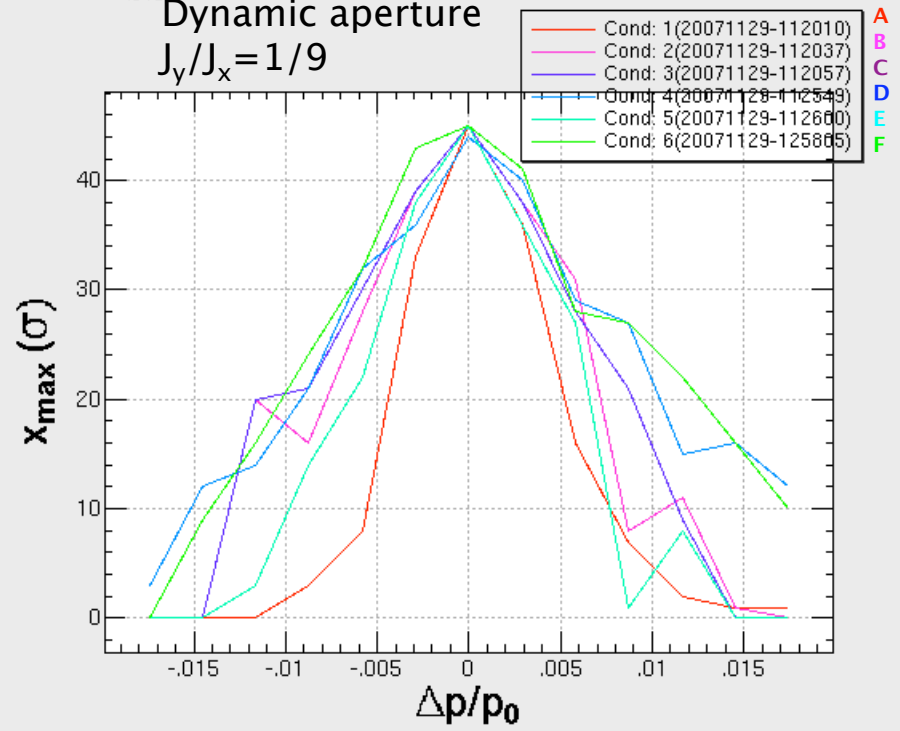
x range min	0	max	50
y range min	0	max	16.7
z range min	-24	max	24
<input type="checkbox"/> Radiation Dumping		step	4
		Tums	1000

Default Read Condition Start New Survey

Break Restart

Read Optics Show Result

Dynamic aperture $J_y/J_x = 1/9$



Estimation of dynamic aperture HER

