

ATF2 Shift Summary

Dec 15 & 17 2009

Glen White, SLAC

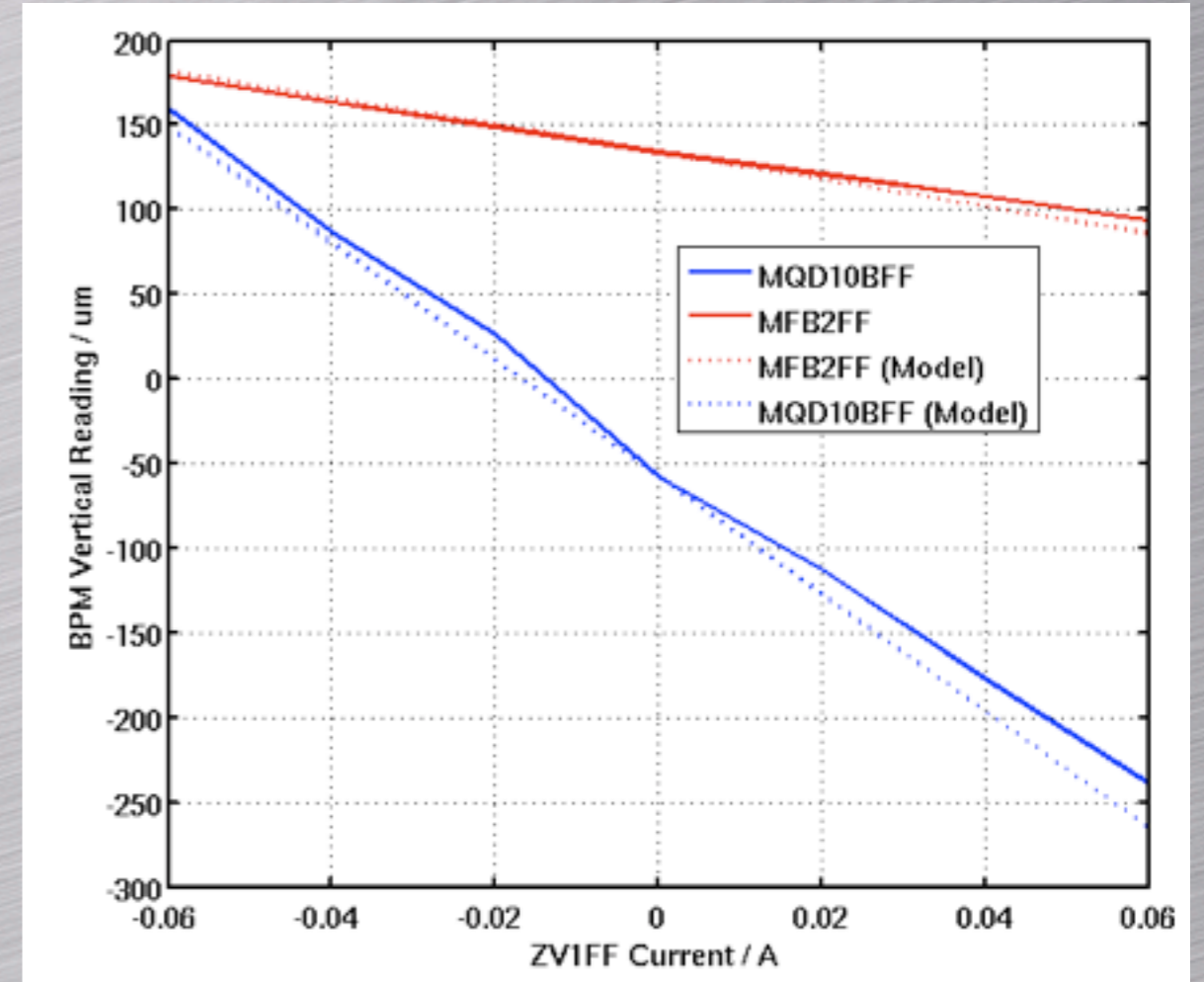
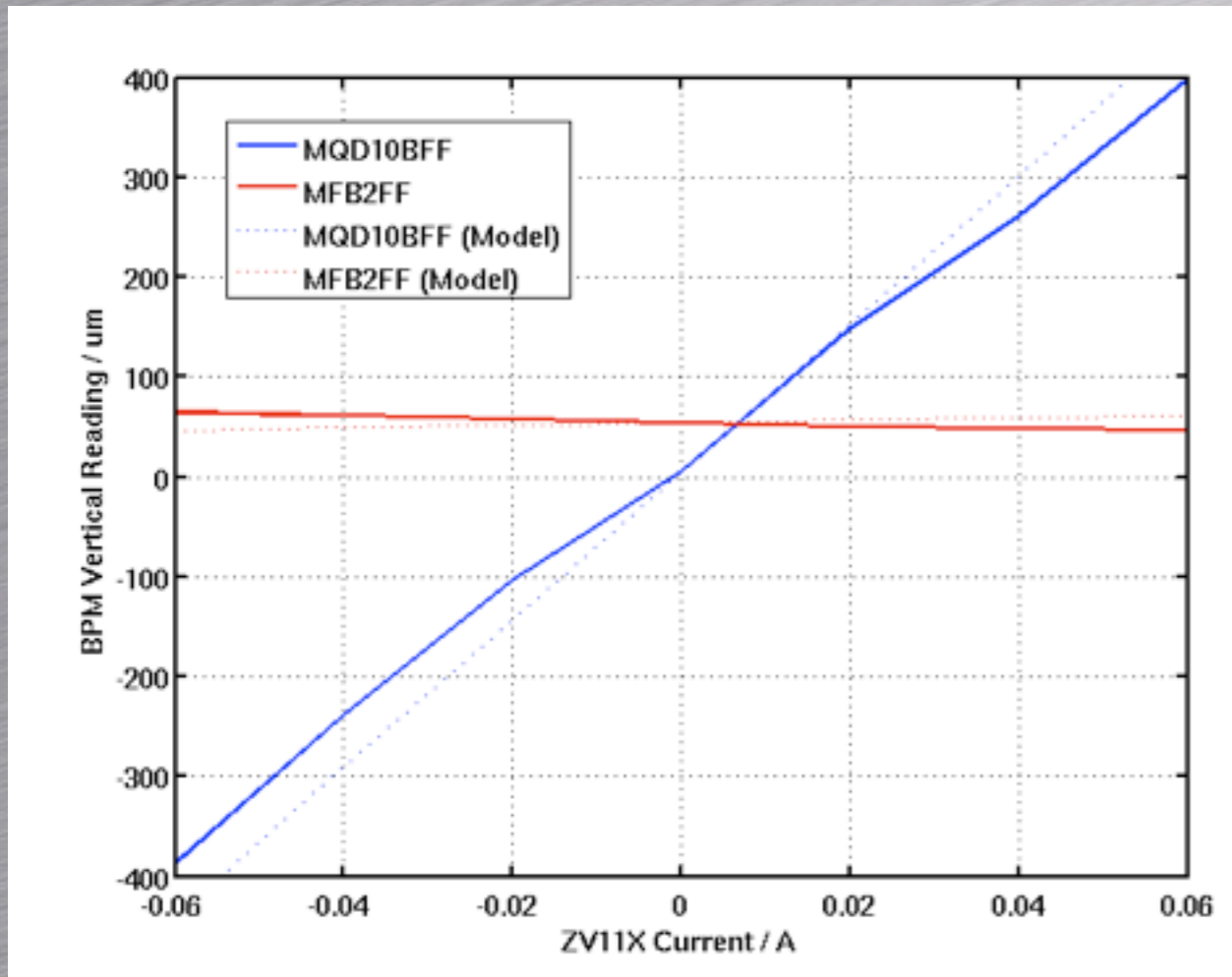
Dec 17 2009

ATF2 9th Annual Collaboration Meeting

Summary

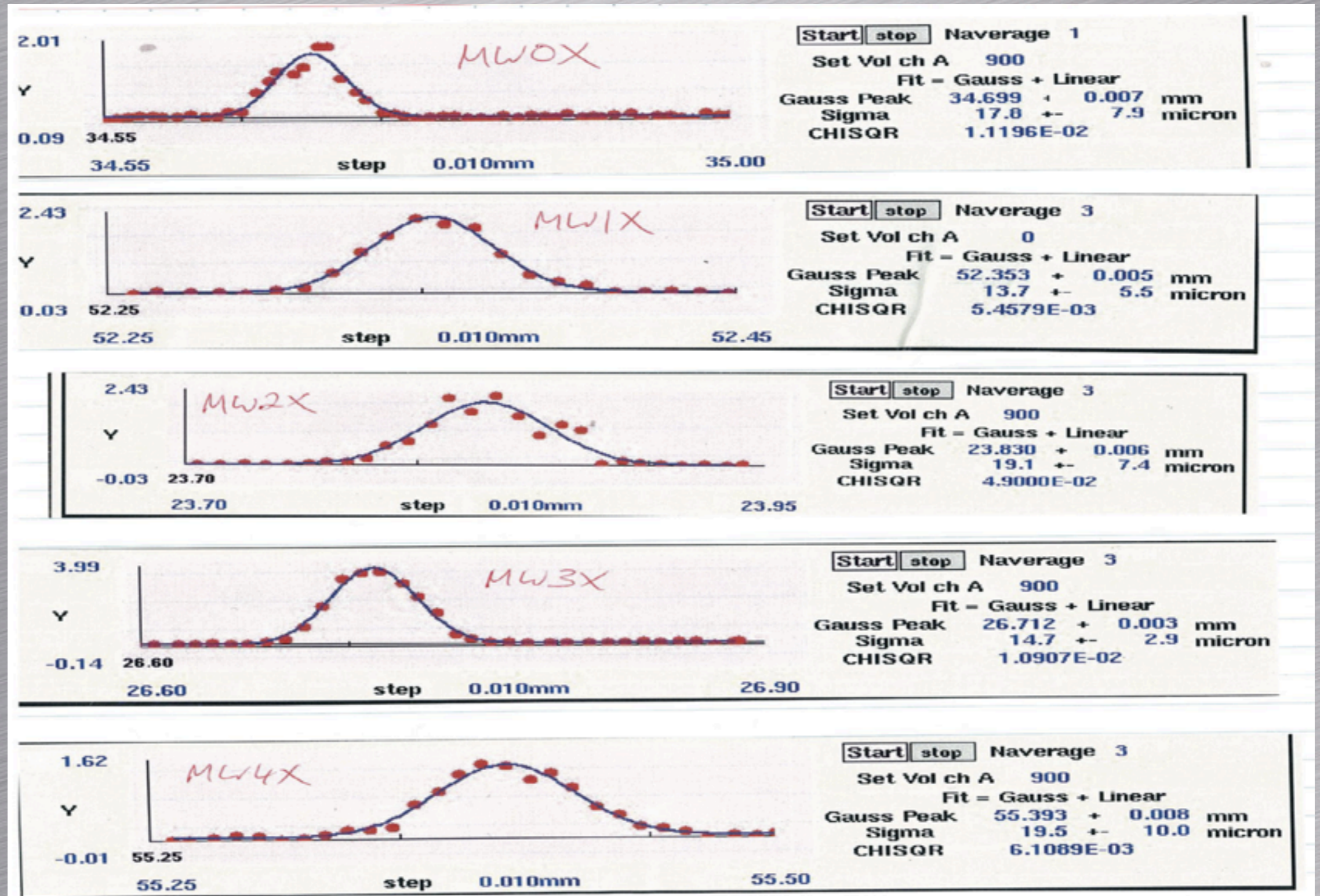
- Analysis of FFS FB corrector scans
- EXT and FFS corrector scans for model optimisation.
- EXT and FFS automated steering.
- Find EXT vertical wirescanner wires.
- Emittance & dispersion determination.

FFS Vertical Feedback Devices

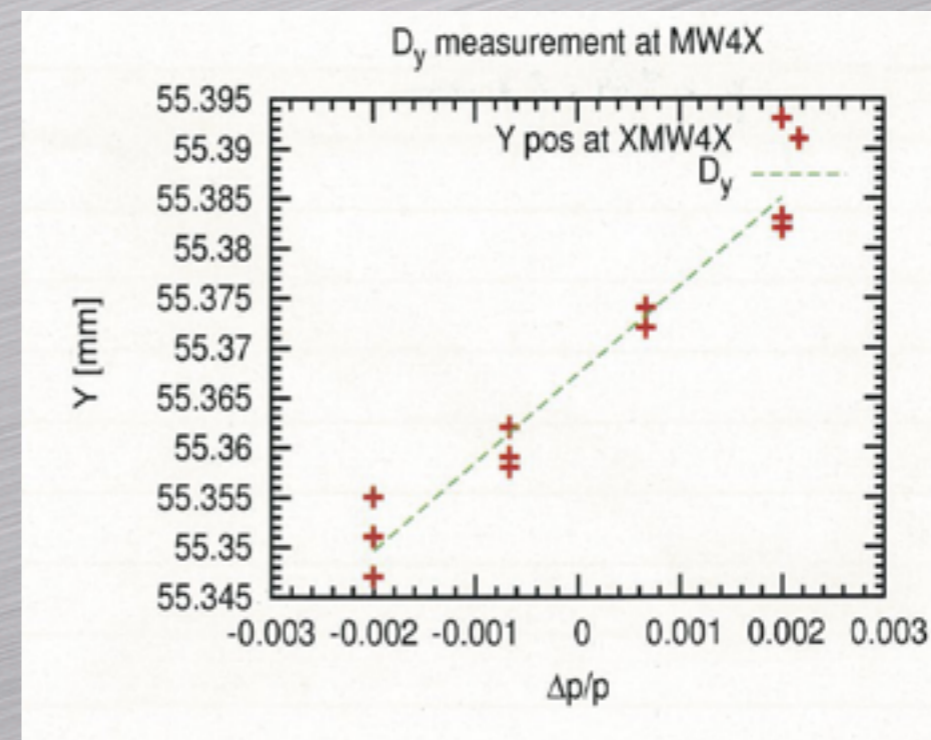
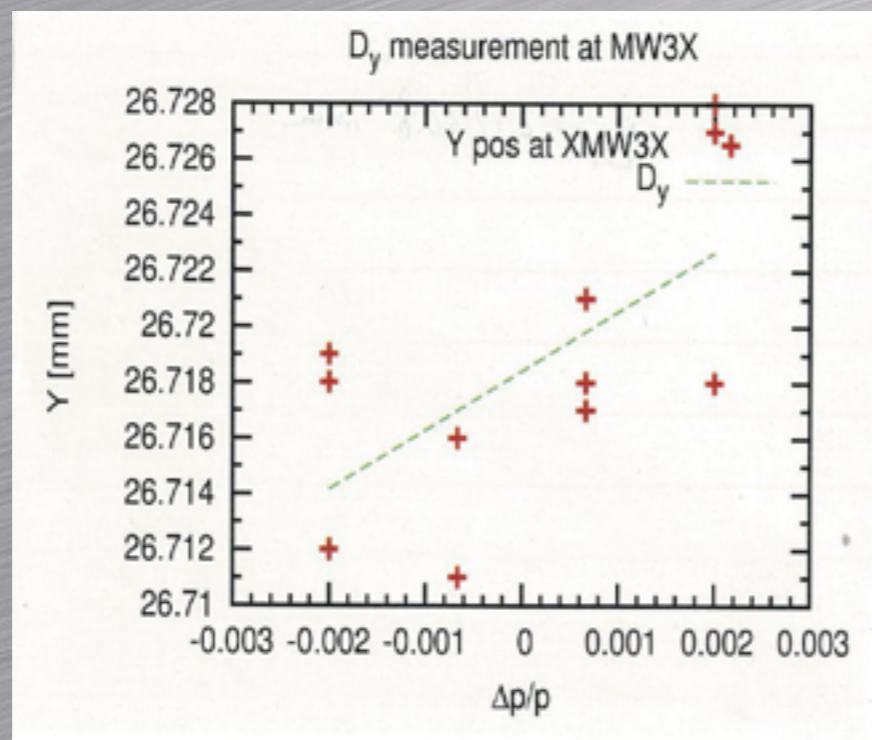
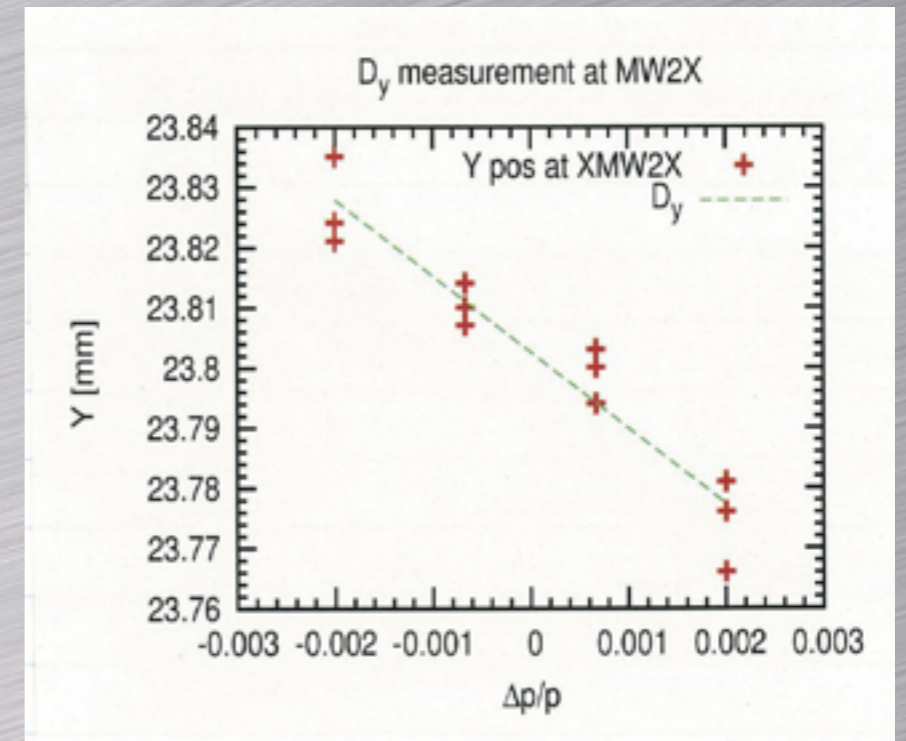
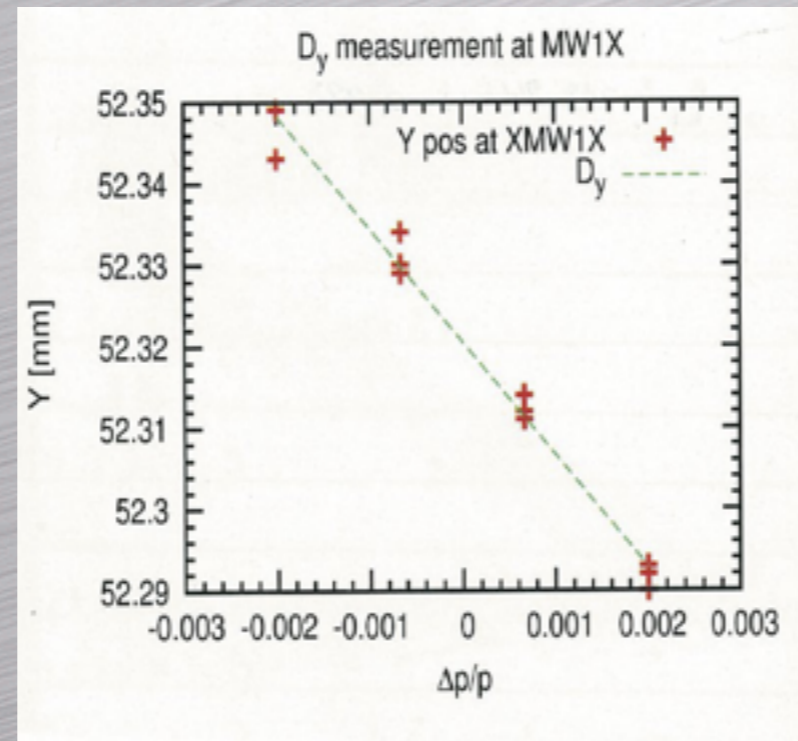
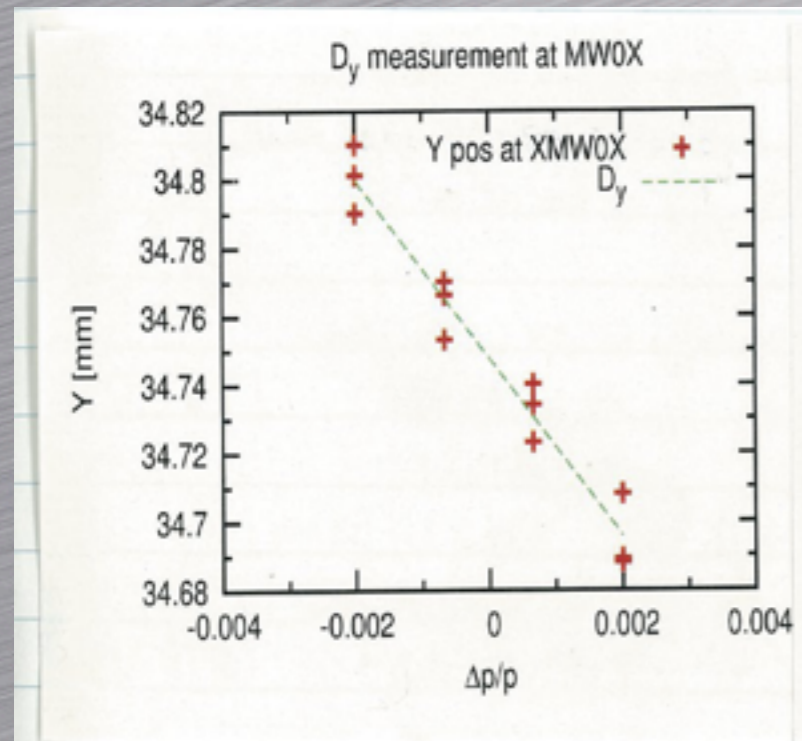


- Vertical feedback correctors and bpms
 - ZV11X / ZV1FF - MQD10BFF / MFB2FF
- Excellent model agreement and enough orthogonality.

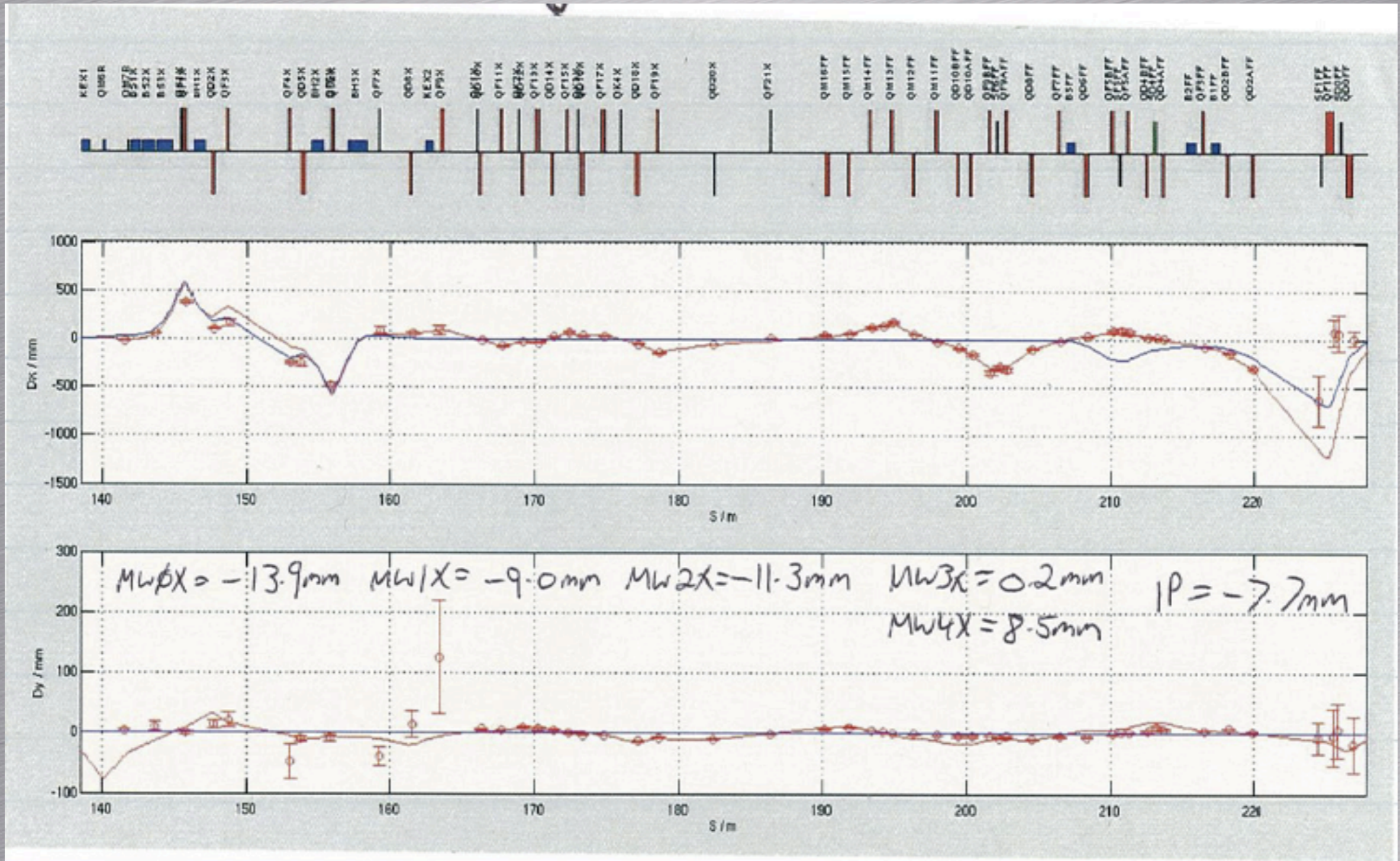
Wirescanner Locations



MW*XY Dispersion



Model Dispersion Measurement and Fit

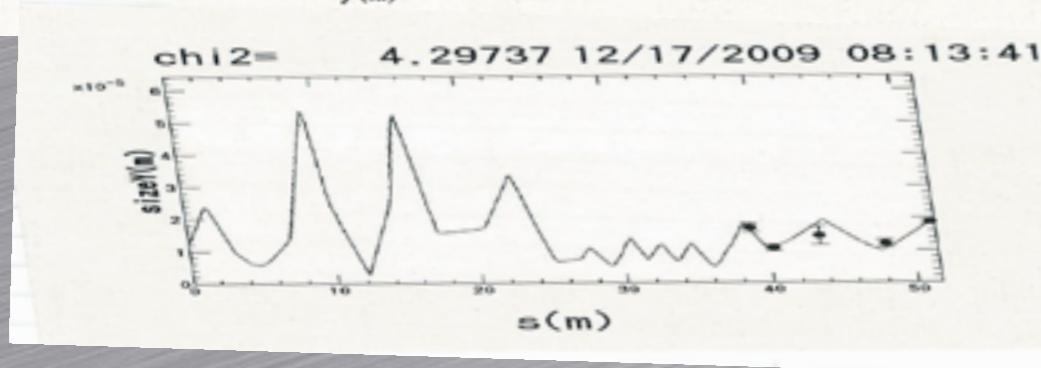
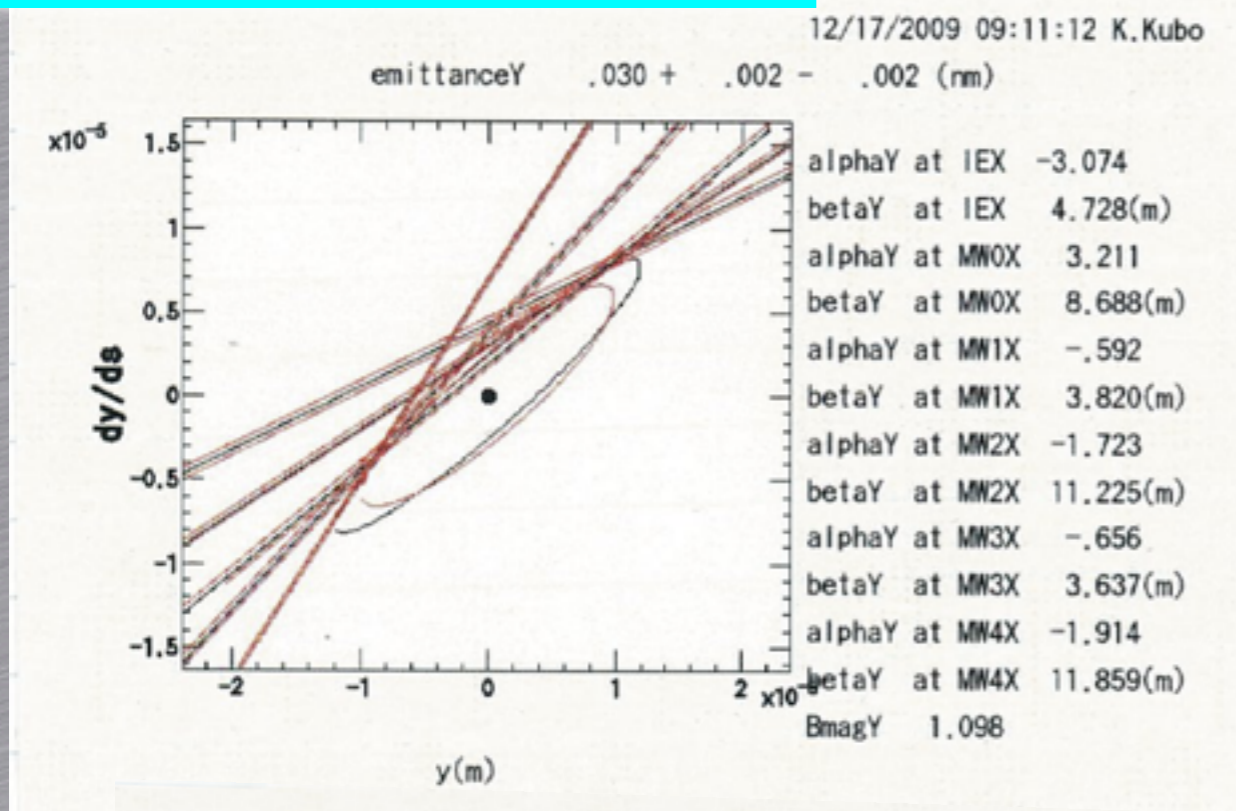


Dispersion on WS's

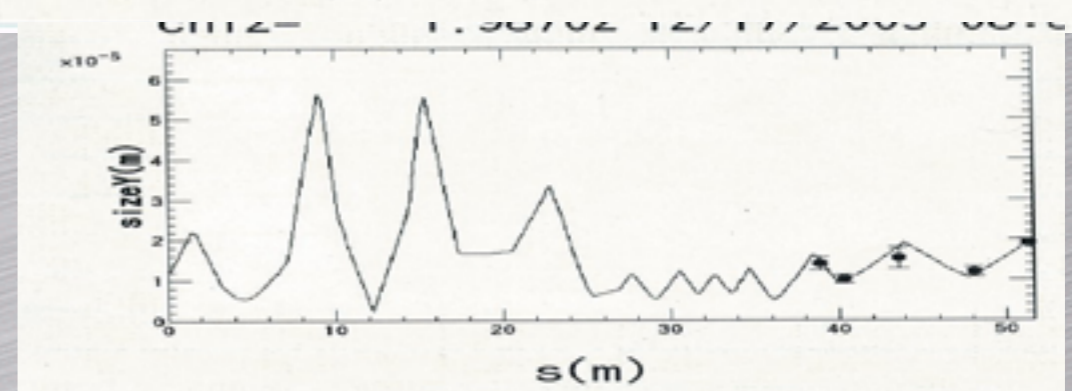
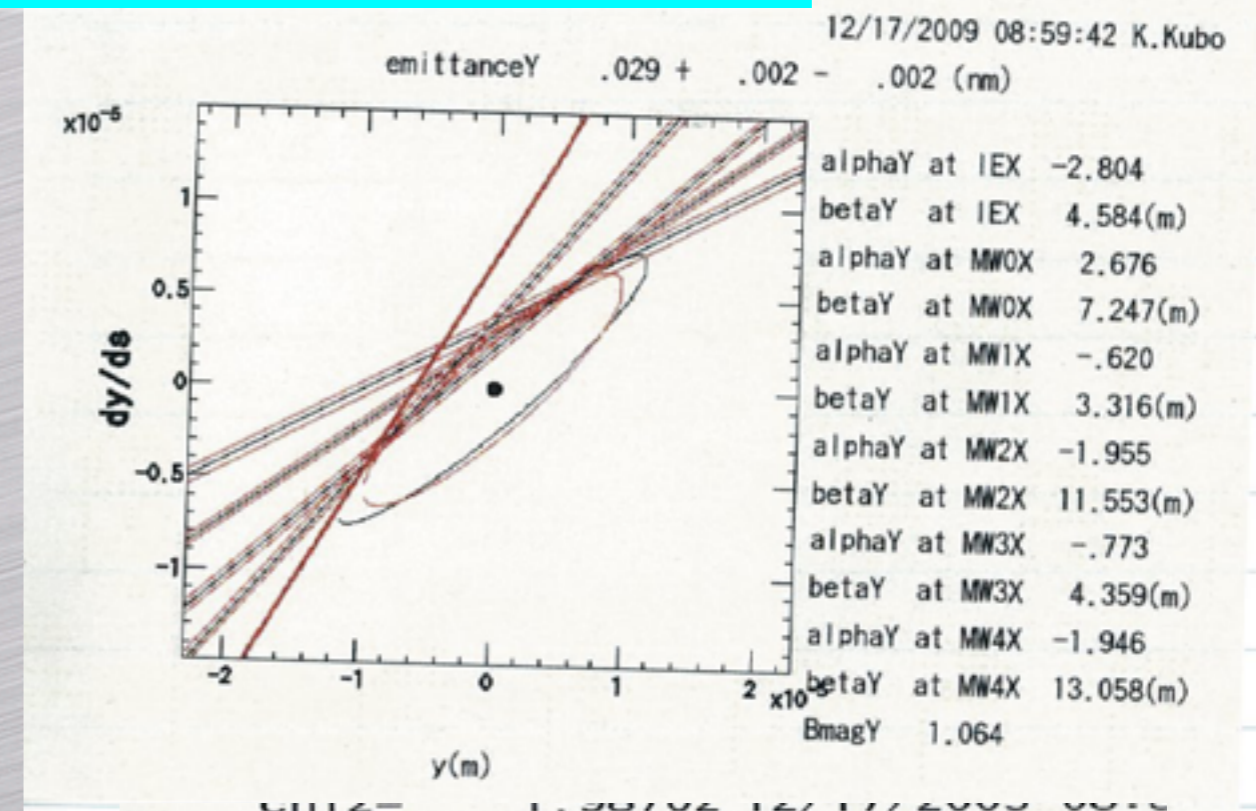
Wirescanner	Measured eta_y (mm)	Model Fit eta_y (mm)
MW0X	-18.2 +/- 1.2	-13.9
MW1X	-9.8 +/- 0.35	-9.0
MW2X	-8.9 +/- 0.8	-11.3
MW3X	1.5 +/- 0.56	0.2
MW4X	6.2 +/- 0.5	8.5

Vertical Emittance and Twiss

Model subtracted dispersion



Measured subtracted dispersion



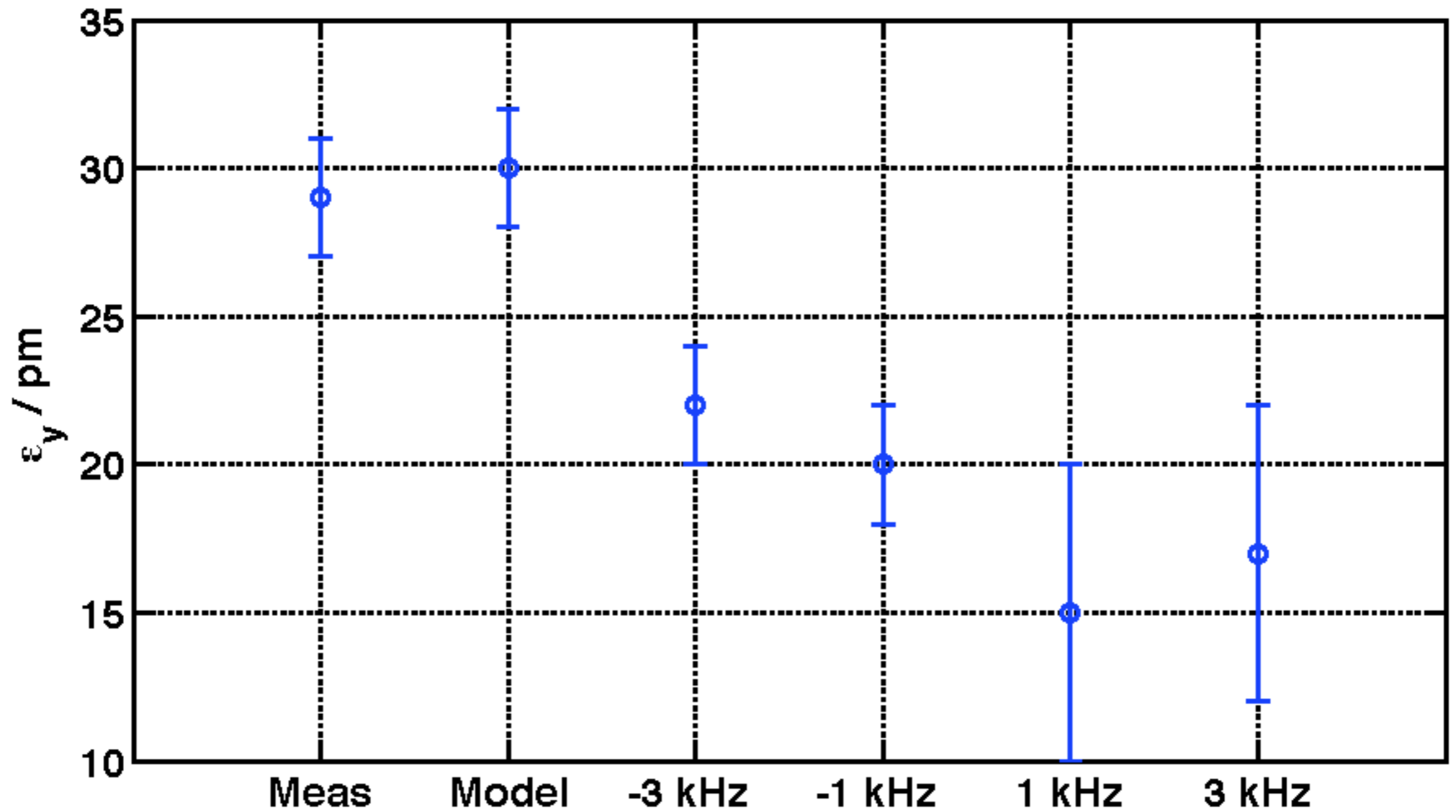
From DR measurements and extrapolation to IEX (last week's run):

$$\alpha_{y} = -3.48$$

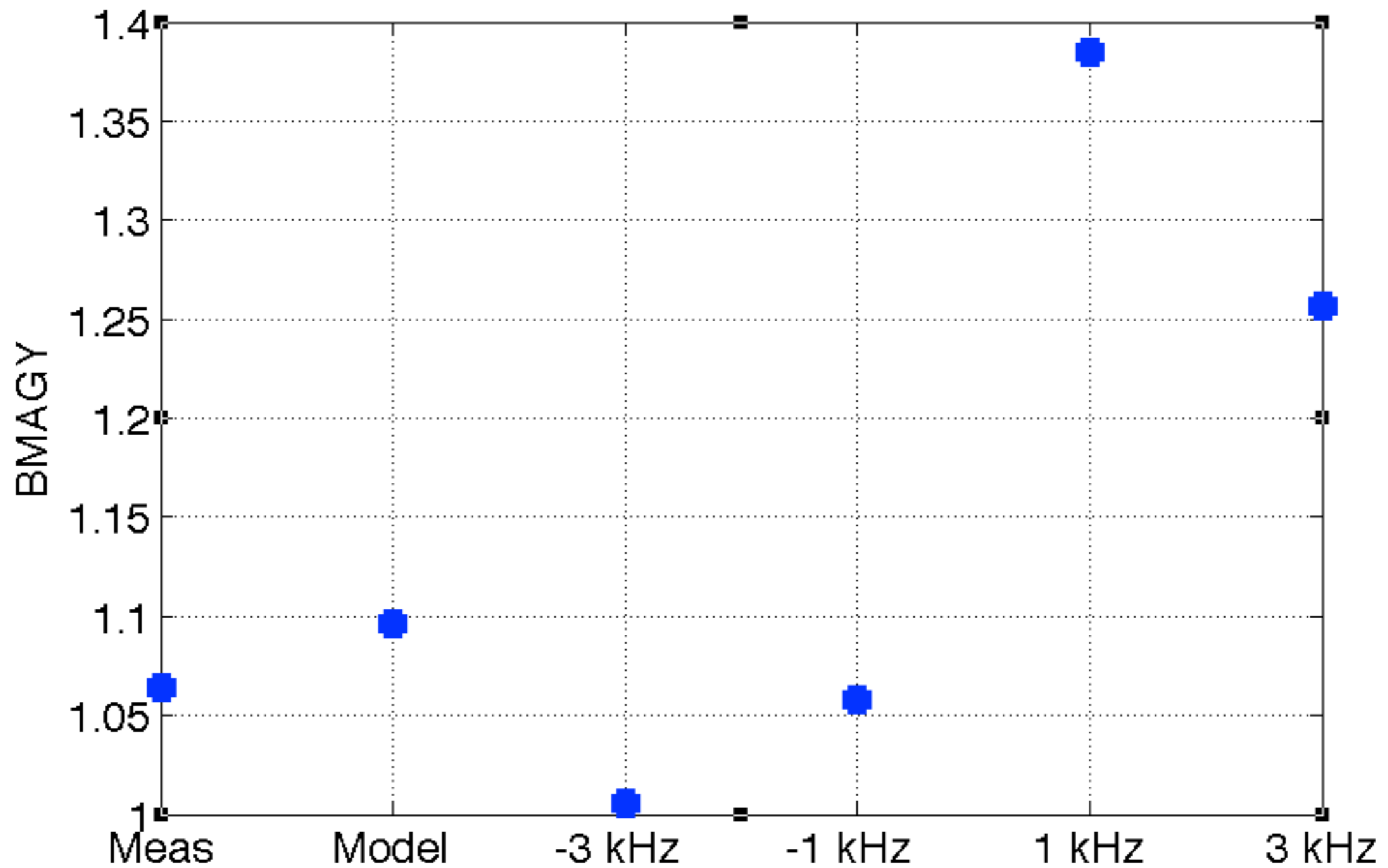
$$\beta_{y} = 4.71 \text{ m}$$

$$B_{MAGY} = 1.046$$

Vertical Emittance with DR Freq Ramp on



BMAGY



$\epsilon_y * BMAGY$

