

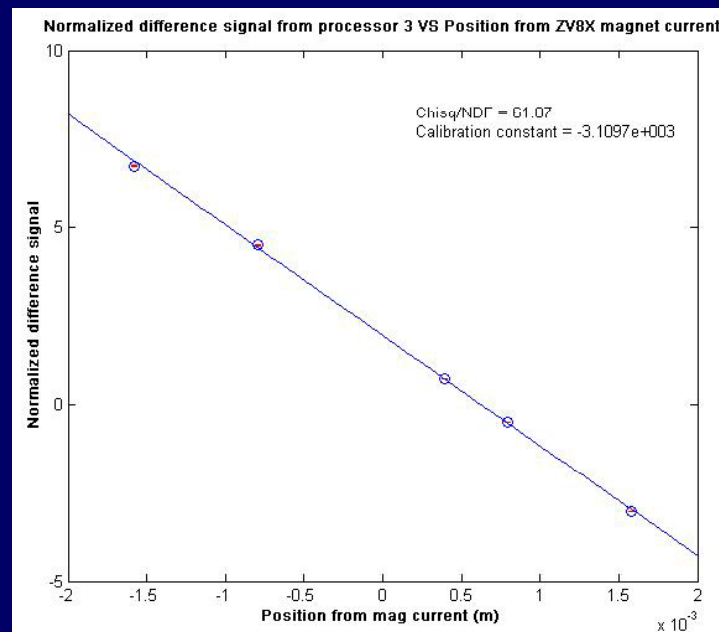
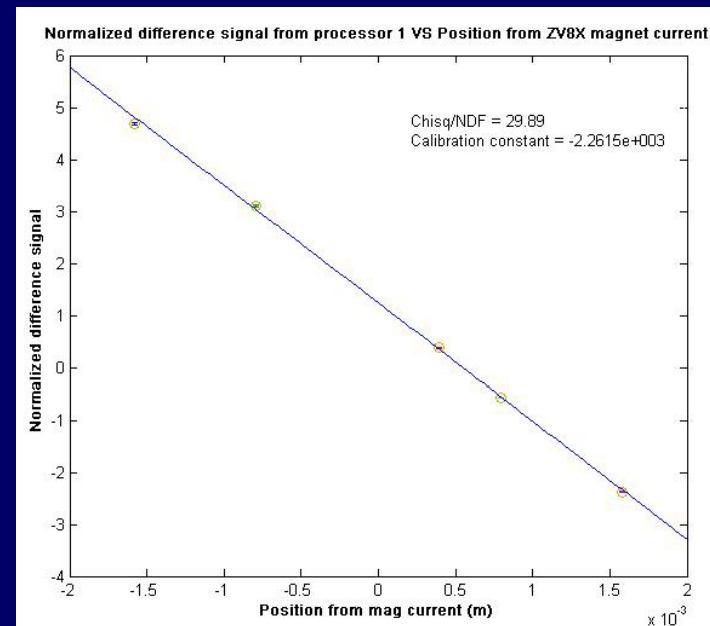
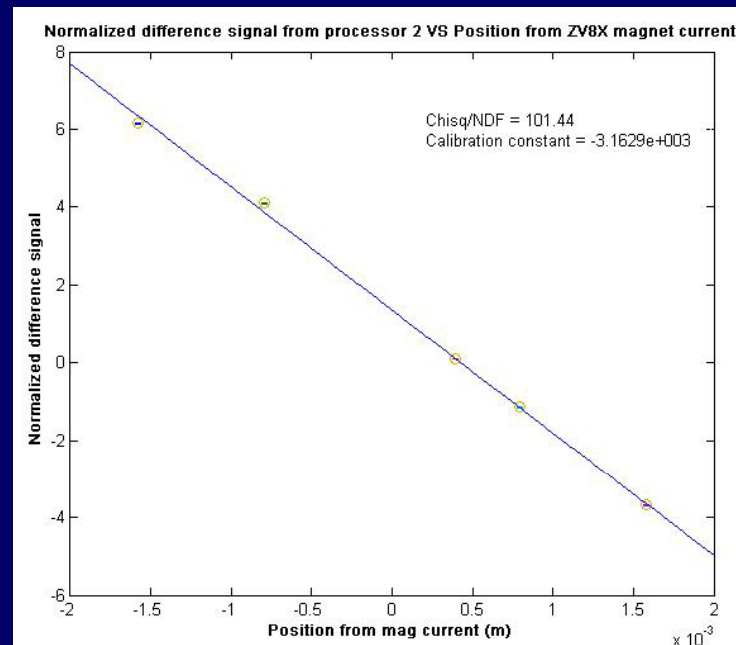
Analogue BPM data analysis

Calibration & resolution
results

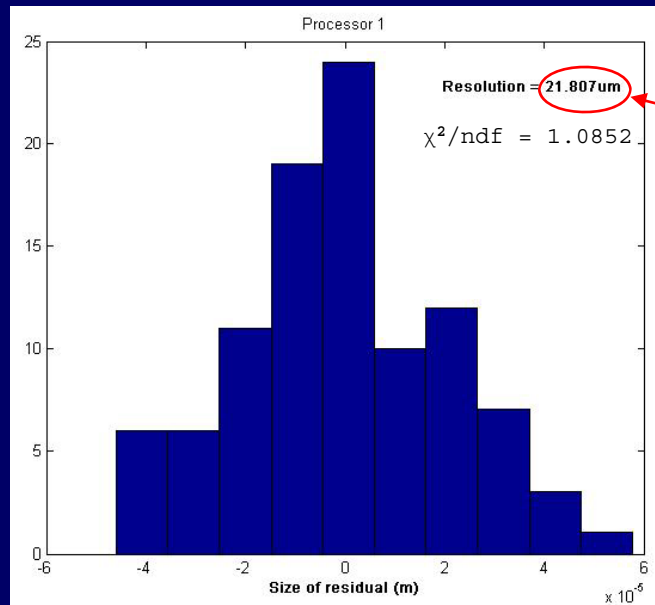
ATF day shift 13/05/08 (calibration)

Setup - 3 analogue processors on
BPM 11 with output from processor #1
split and fed into digital board.

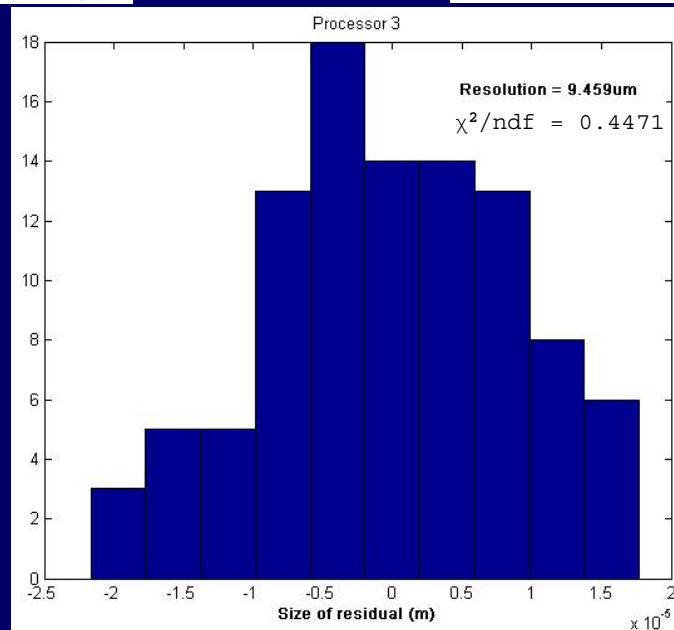
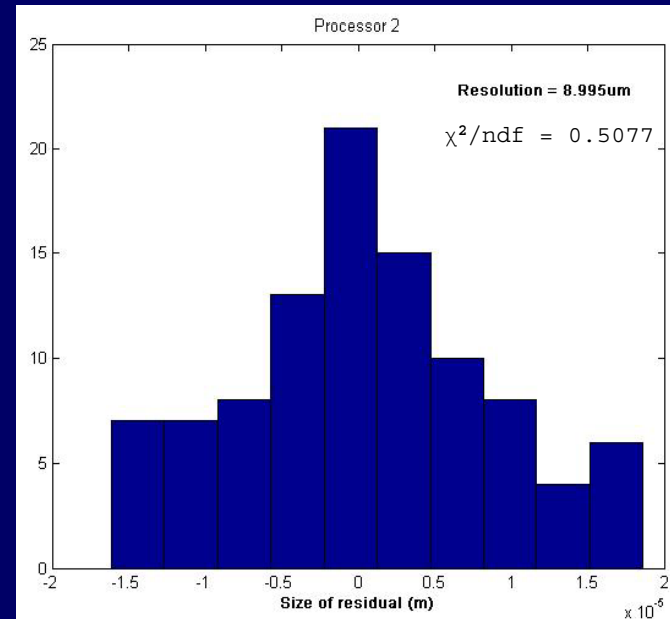
Data taken with single bunch beam.



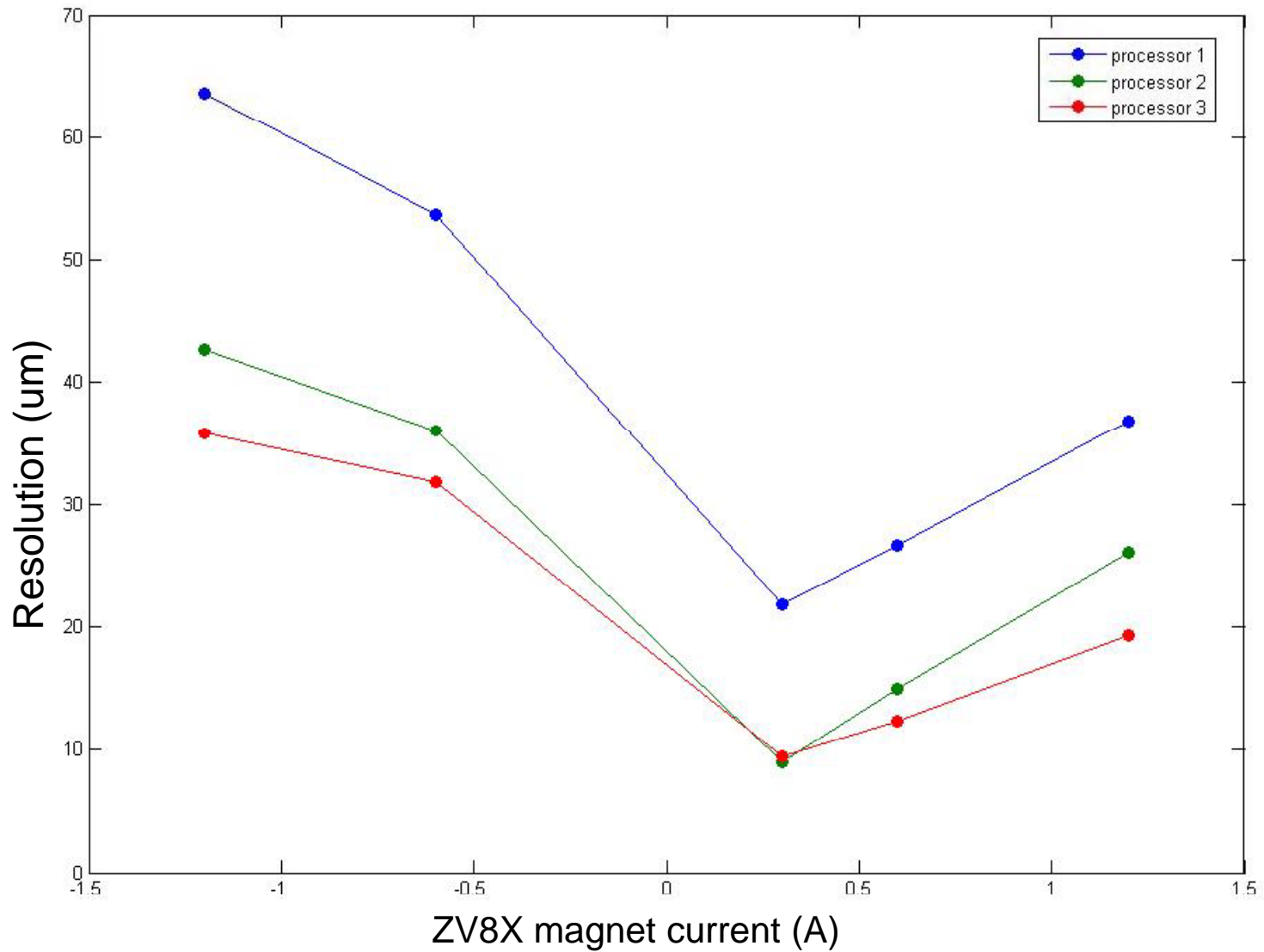
ATF day shift 13/05/08 (resolution)



P1 res is 2x p2&p3.
P1 signal was split
(1/2 in digital board)



Resolution Vs position



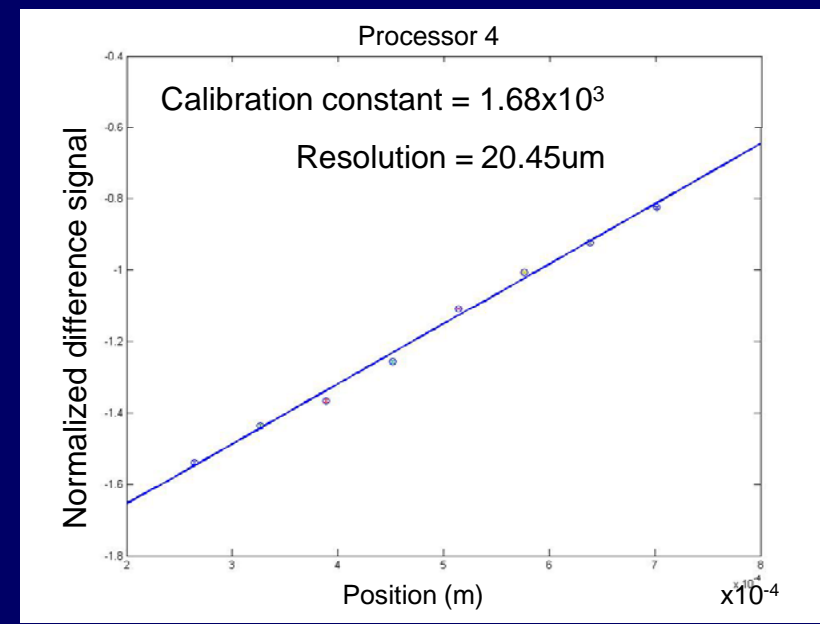
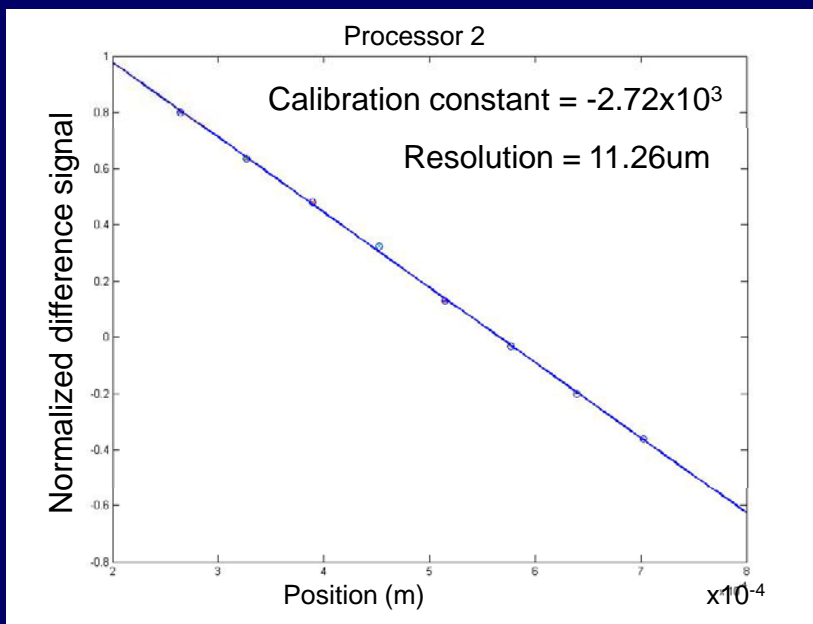
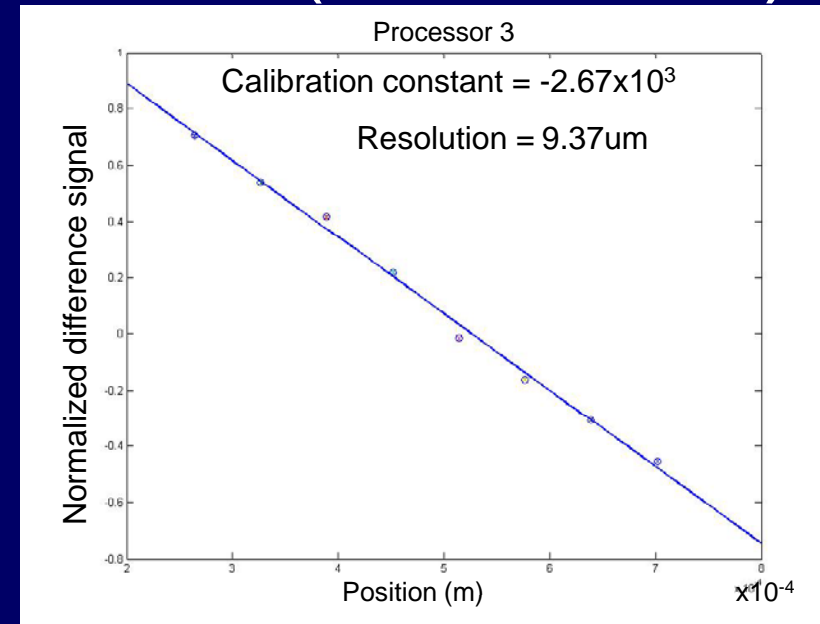
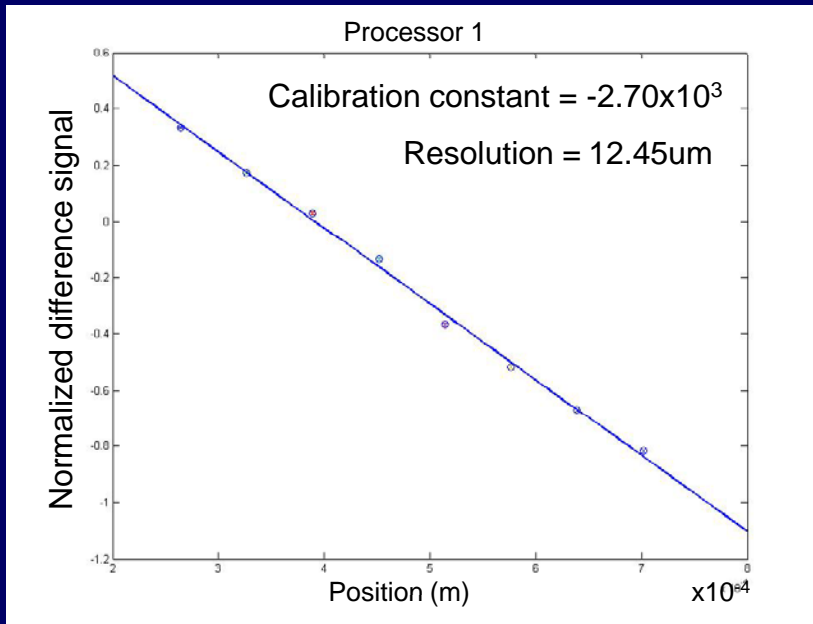
ATF owl shift 13/03/08

BPM calibration and resolution results

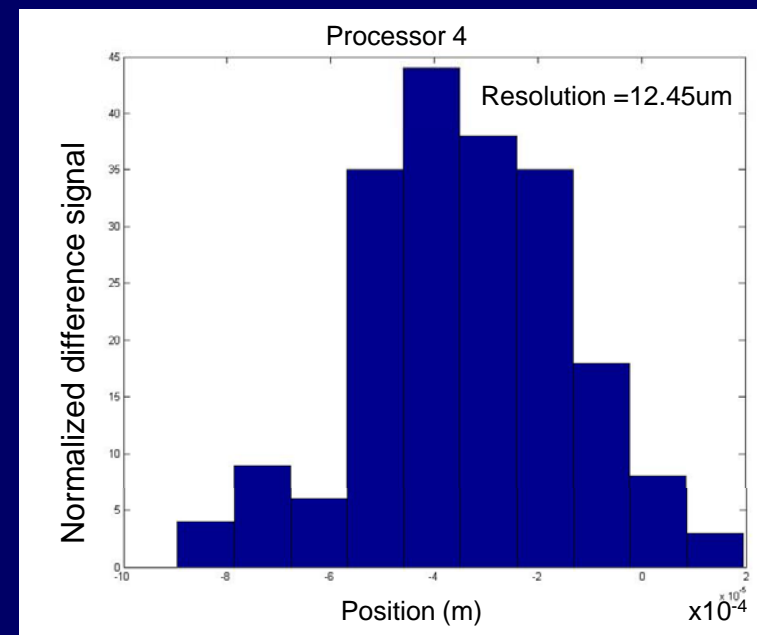
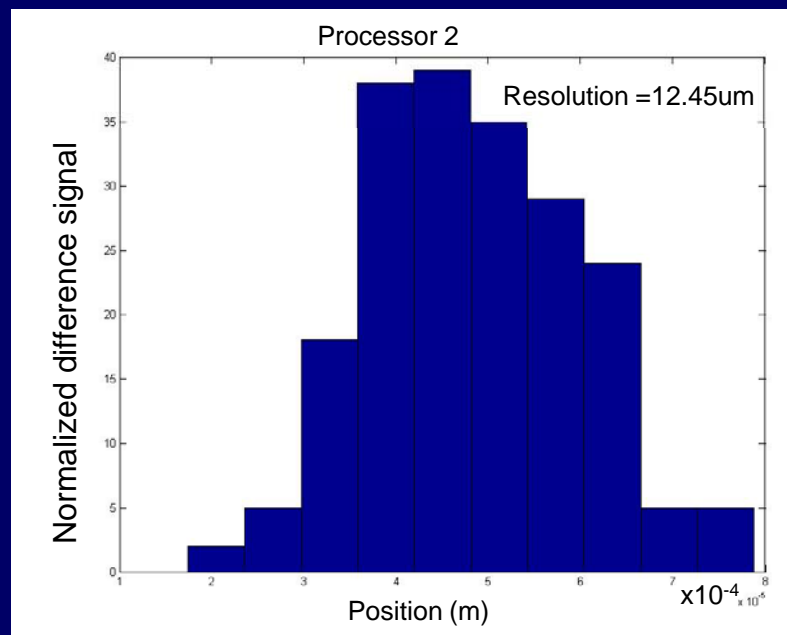
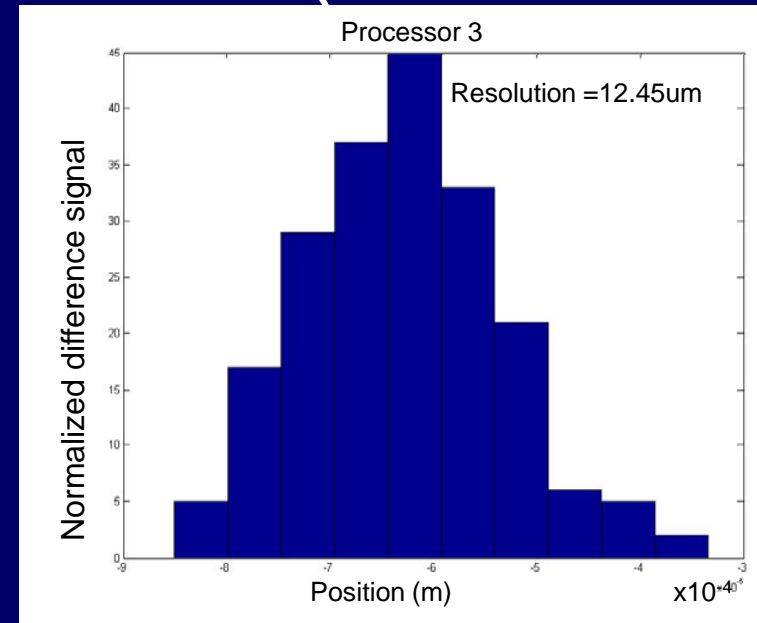
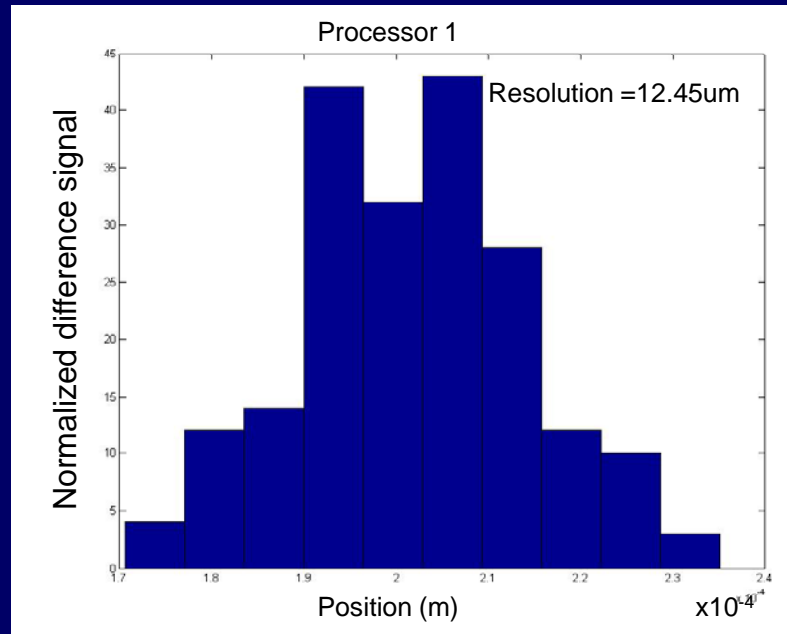
All four processors connected to BPM 10 pickup (therefore stripline signal split 4 ways).

Corrector magnet ZV8X was used for calibration purposes and all relevant quads switched off .

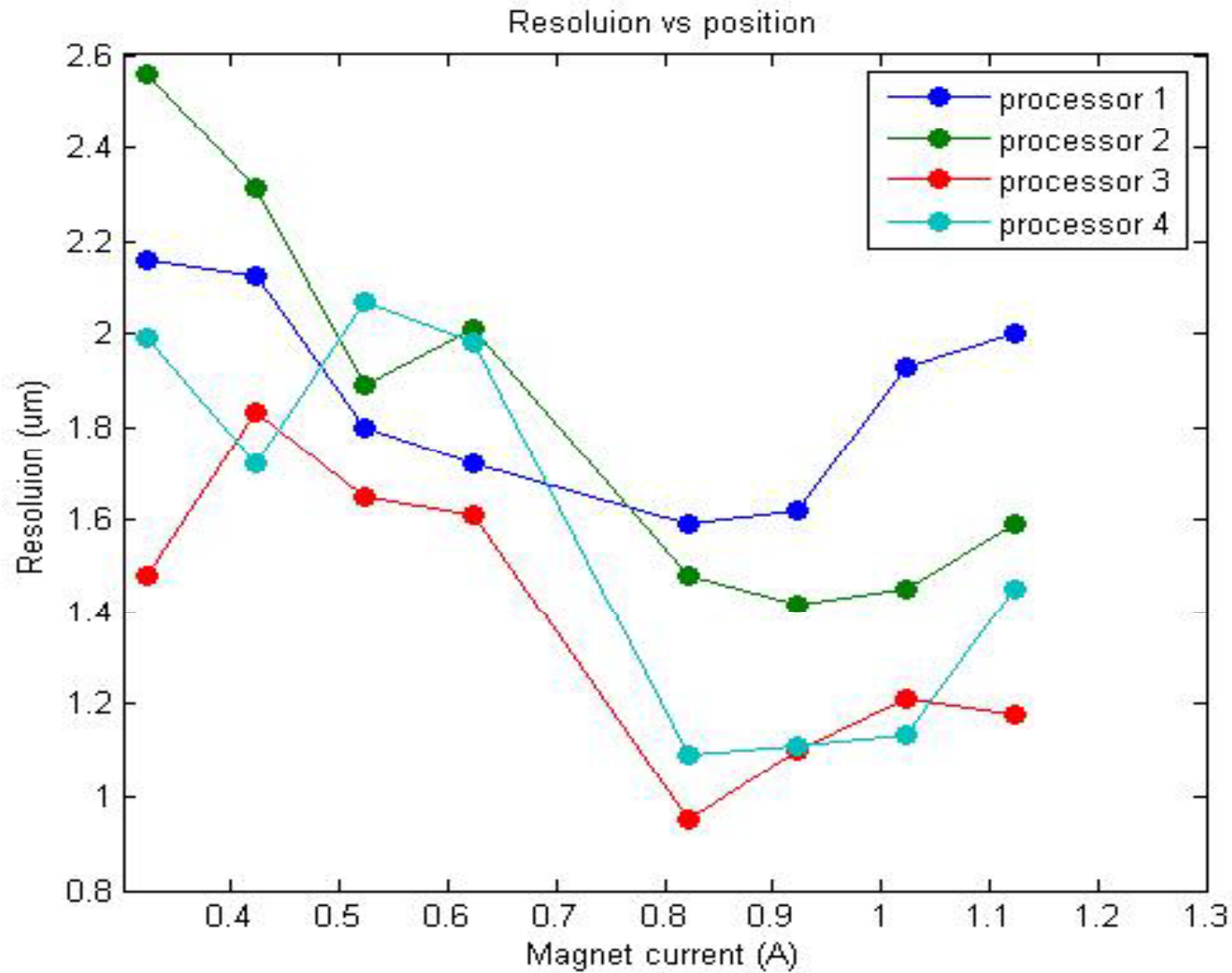
ATF owl shift 13/03/08 (calibration)



ATF owl shift 13/03/08 (resolution)



Resolution Vs position



ATF December '07

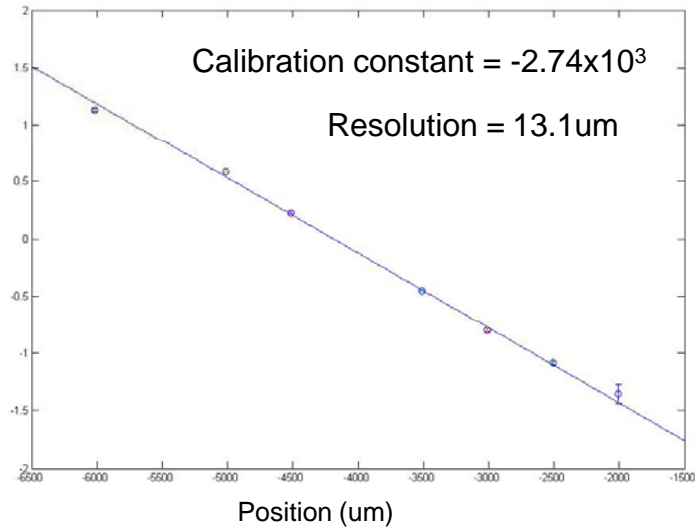
BPM calibration and resolution results

All four processors connected to BPM 12 pickup (therefore stripline signal split 4 ways).

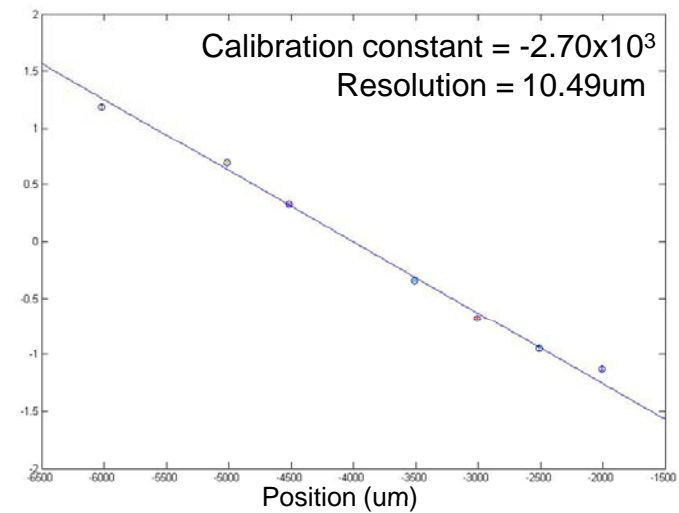
Corrector magnet ZV7X was used for calibration purposes and all relevant quads switched off .

ATF December '07 (calibration)

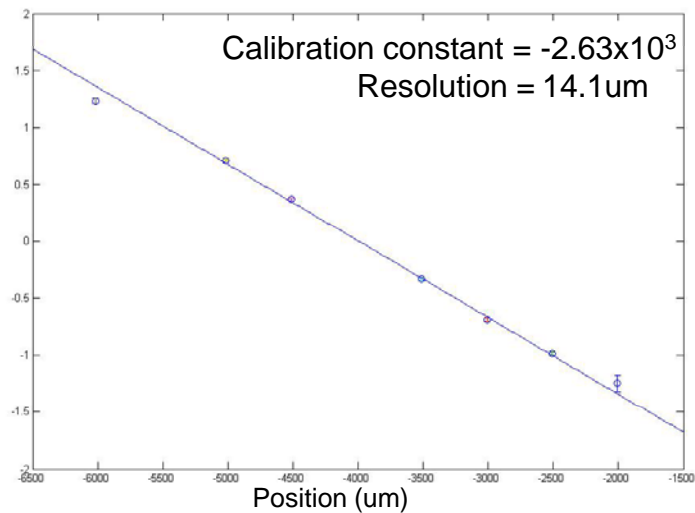
Processor 1



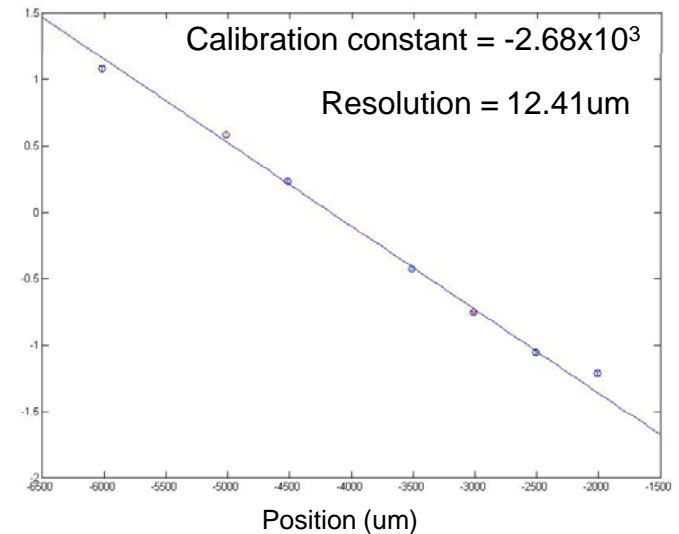
Processor 3



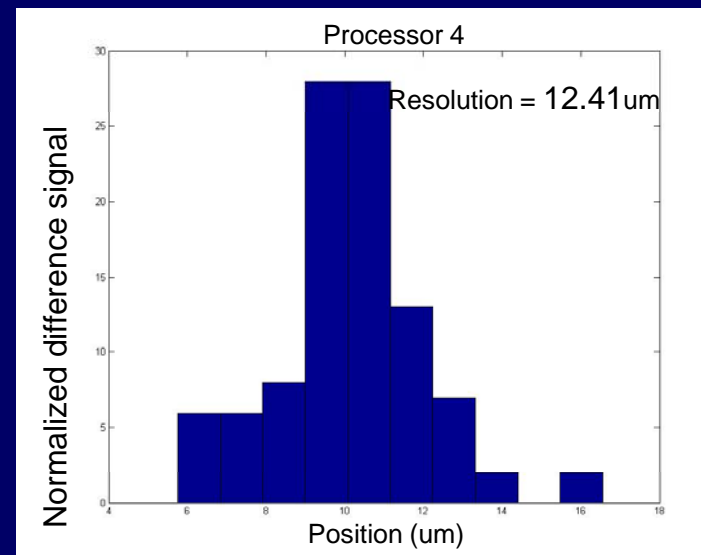
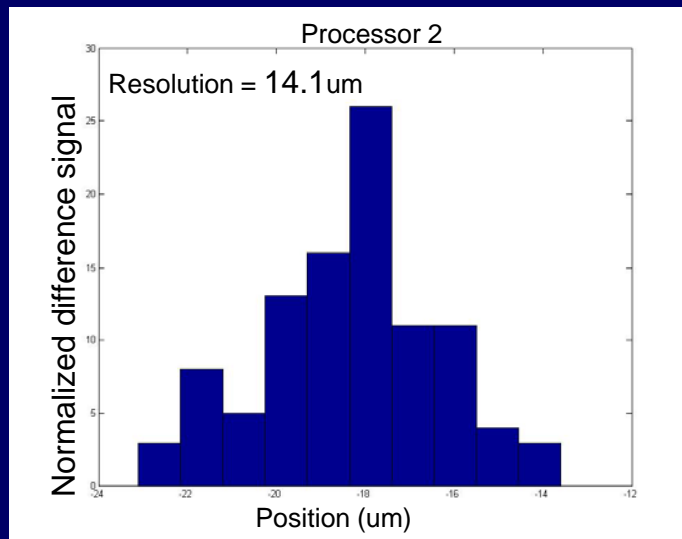
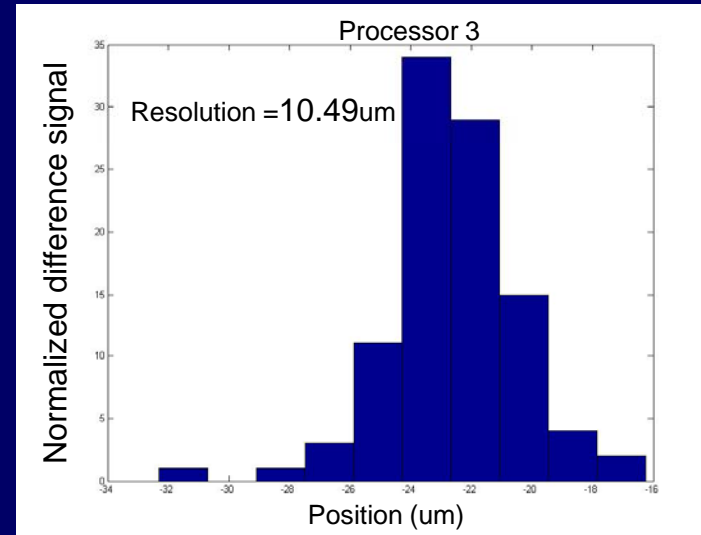
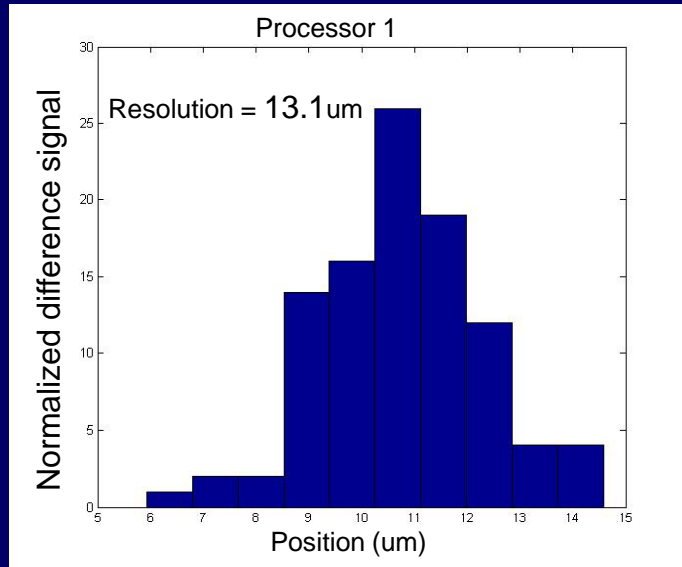
Processor 2



Processor 4



ATF Dec '07 (resolution)



Run	Processor #	BPM #	Charge (10 ¹⁰)	Split	Scope #	Signal levels			Offset (mV)		Calibration constant (m ⁻¹)	Resolution (um)
						Max (mV)	Min (mV)	Sum (mV)	Diff (mV)	Sum (mV)		
Oct '07	P1	10	--	no	1	100	20	30			-2.77x10 ³	41.37
	P3	11	--	no	1	110	10	15			-2.44x10 ³	25.37
	P4	12	--	no	2	100	35	23			-2.48x10 ³	24.73
Dec '07	P1	12	--	4 ways	1	100	3.5	15	3.2	1.7	-2.74x10 ³	13.1
	P2	12	--	4 ways	1	90	7	15	2.9	1.7	-2.63x10 ³	14.1
	P3	12	--	4 ways	2	110	4	20	3.7	2.8	-2.70x10 ³	10.49
	P4	12	--	4 ways	2	110	10	20	2.5	0.45	-2.68x10 ³	12.41
March '08	P1	10	--	4 ways	1	45	-5	40	6.7	9.2	-2.70x10 ³	12.45
	P2	10	--	4 ways	dif=1 sum=2	50	-5	35	6.3	6.7	-2.72x10 ³	11.26
	P3	10	--	4 ways	dif=1 sum=2	40	-8	30	1.4	10.2	-2.67x10 ³	9.37
	P4	10	--	4 ways	2	50	0	40	10.2	1.7	1.68x10 ³	20.45
May '08				4 ways								
	P1	11	0.9	+output 2 ways	1	60	4	11	0.45	-0.56	-2.26x10 ³	21.81
	P2	11	0.9	4 ways	1	70	1.5	12.5	1.1	0.34	-3.16x10 ³	9.00
	P3	11	0.9	4 ways	2	90	9	14	2.1	-0.35	-3.11x10 ³	9.46