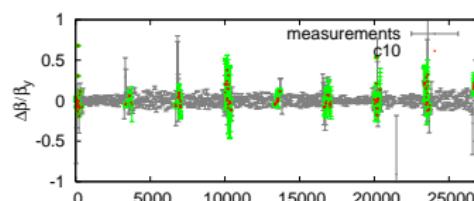
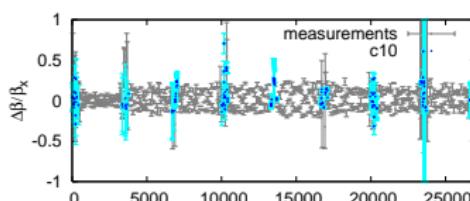
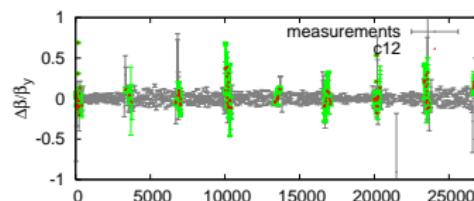
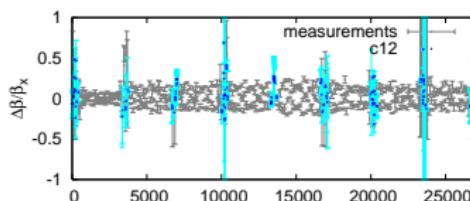
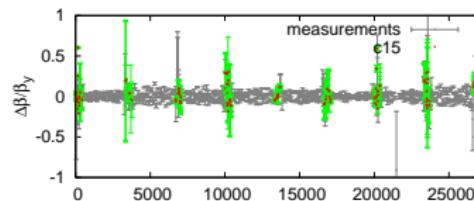
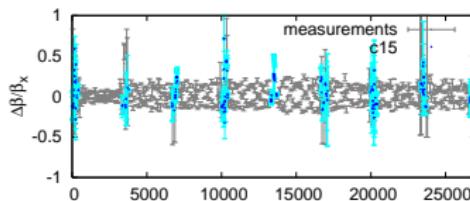
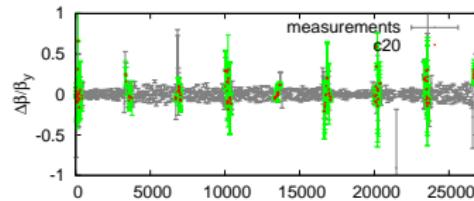
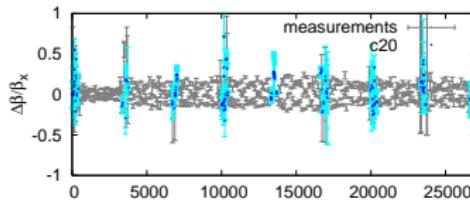


Betas during ramp.

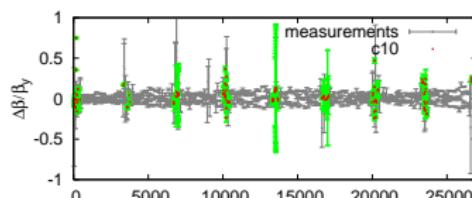
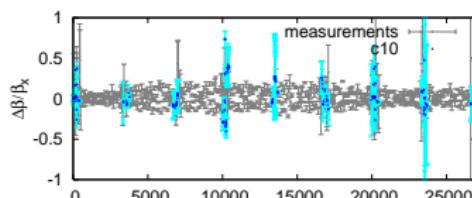
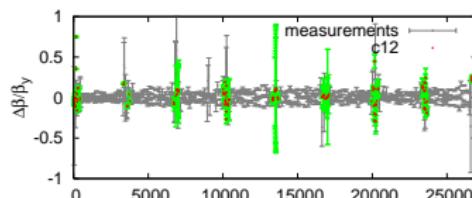
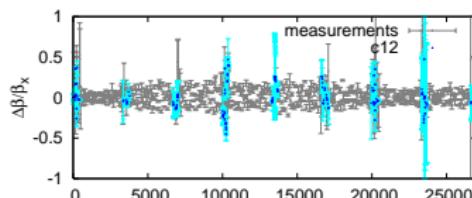
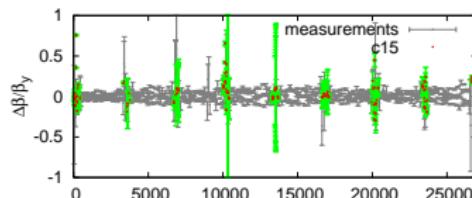
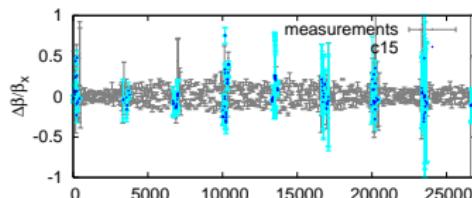
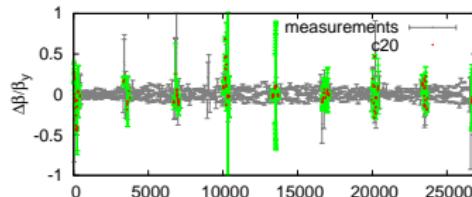
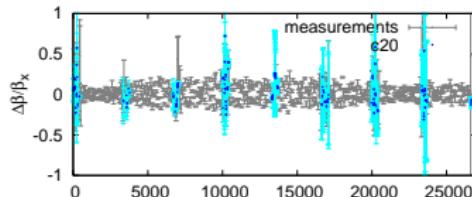
Propagated β for Wirescanner BWS.5R4.B1.

- Nominal values for injection: $\beta_x = 165.8$ and $\beta_y = 287.9$

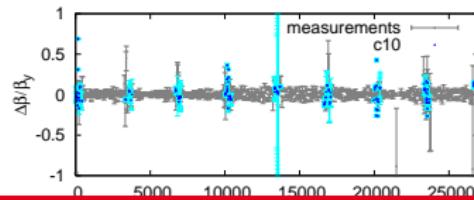
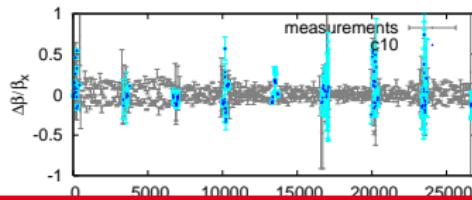
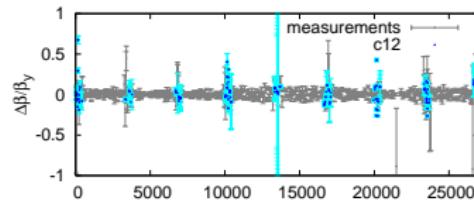
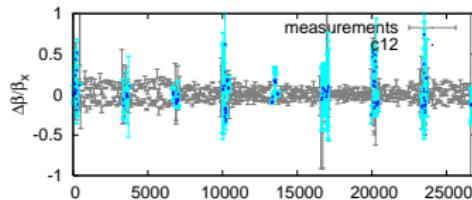
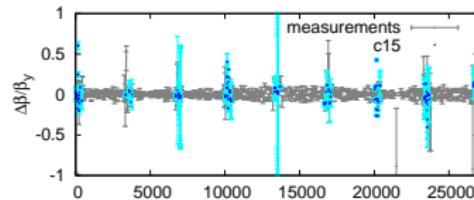
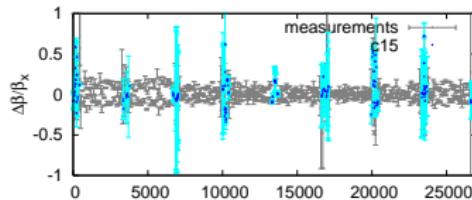
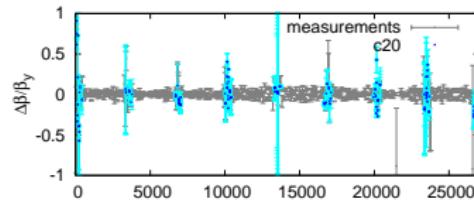
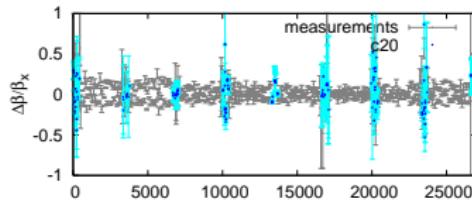
Energy	BPM Error Cut	β_x	σ_{β_x}	β_y	σ_{β_y}
1.33 TeV	10%	180.65	10.61	302.4	17.52
	12%	180.65	10.61	302.4	17.52
	15%	180.65	10.61	302.4	17.52
	20%	180.65	10.61	302.4	17.52
2.3 TeV	10%	159.43	24.95	307.72	46.18
	12%	150.67	24.95	315.5	46.18
	15%	150.67	24.95	315.5	46.18
	20%	156.16	6.6	284.65	9.03
3.0 TeV	10%	147.57	10.58	276.47	14.86
	12%	148.31	10.58	276.75	14.86
	15%	155.24	149.33	285.48	105.49
	20%	168.53	23.29	259.76	1.3



2.3 TeV.



3.0 TeV.



Beta-Beat from MQY calibration.

LHCb1(inj'), BPM.15L4 to BPM.15R4

