

Study of CeC PoP Equipment Effect on the RHIC Beam

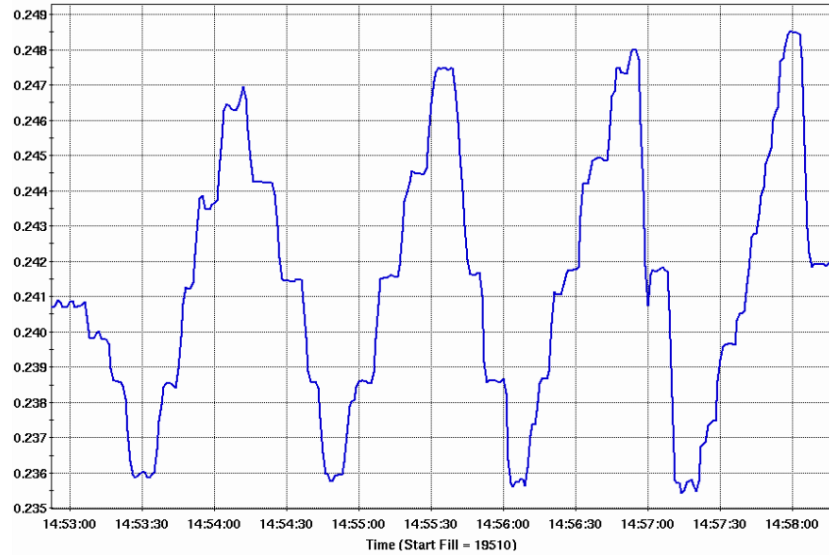
February 12, 2016

Igor Pinayev

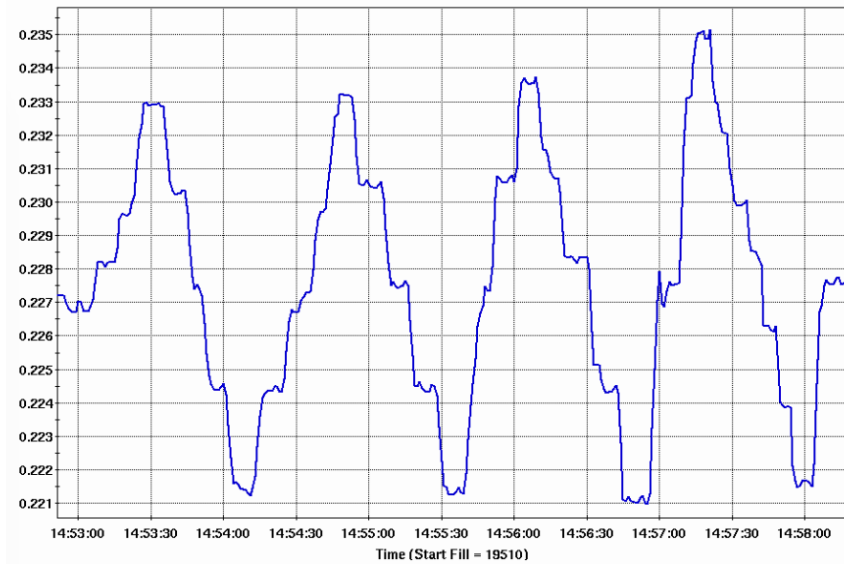
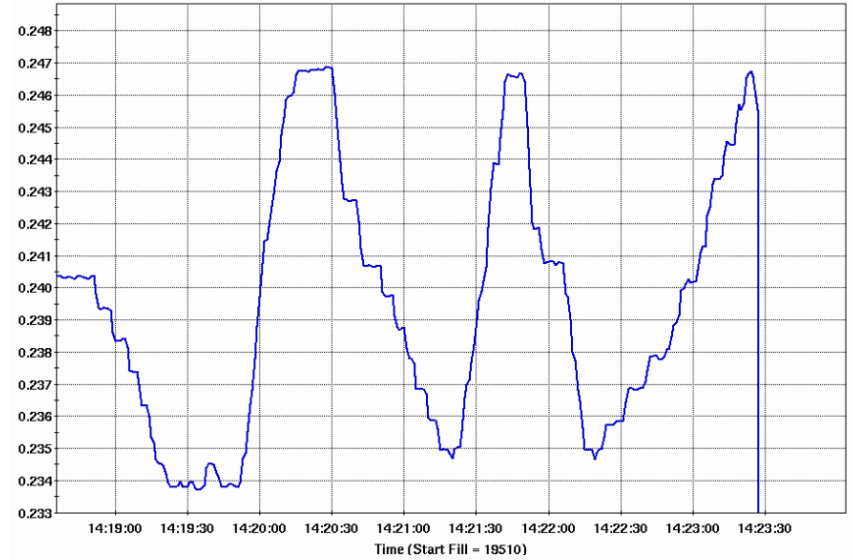
Experiment Set-up

- 12 (13, 14) bunches in the blue ring
- Gold ions at injection energy ($\gamma=10.52$, $Br=81.13$ T m)
- Eight quadrupoles were energized from -6 to 6 Amperes (gradient integral 0.45 T at 5.8 A)
- Tunes for both planes were observed
- There were beam drop outs

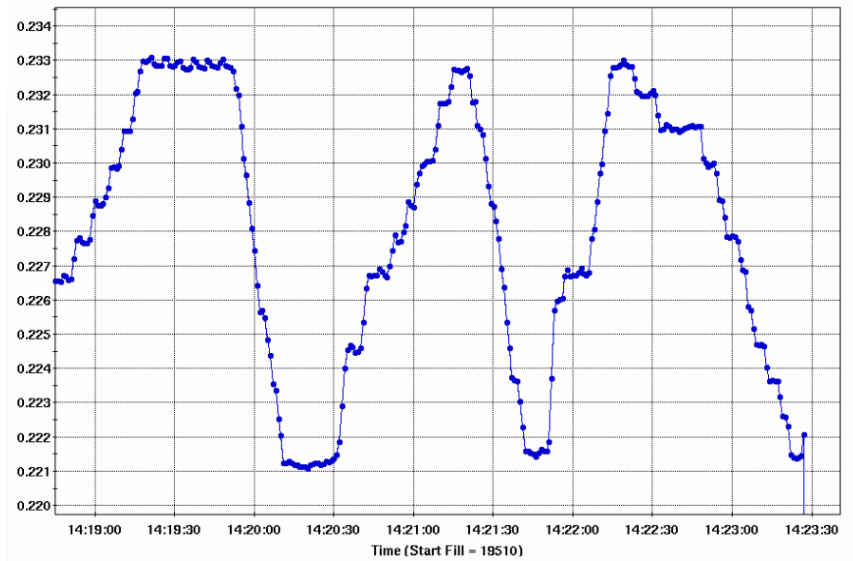
Tune Change Observed



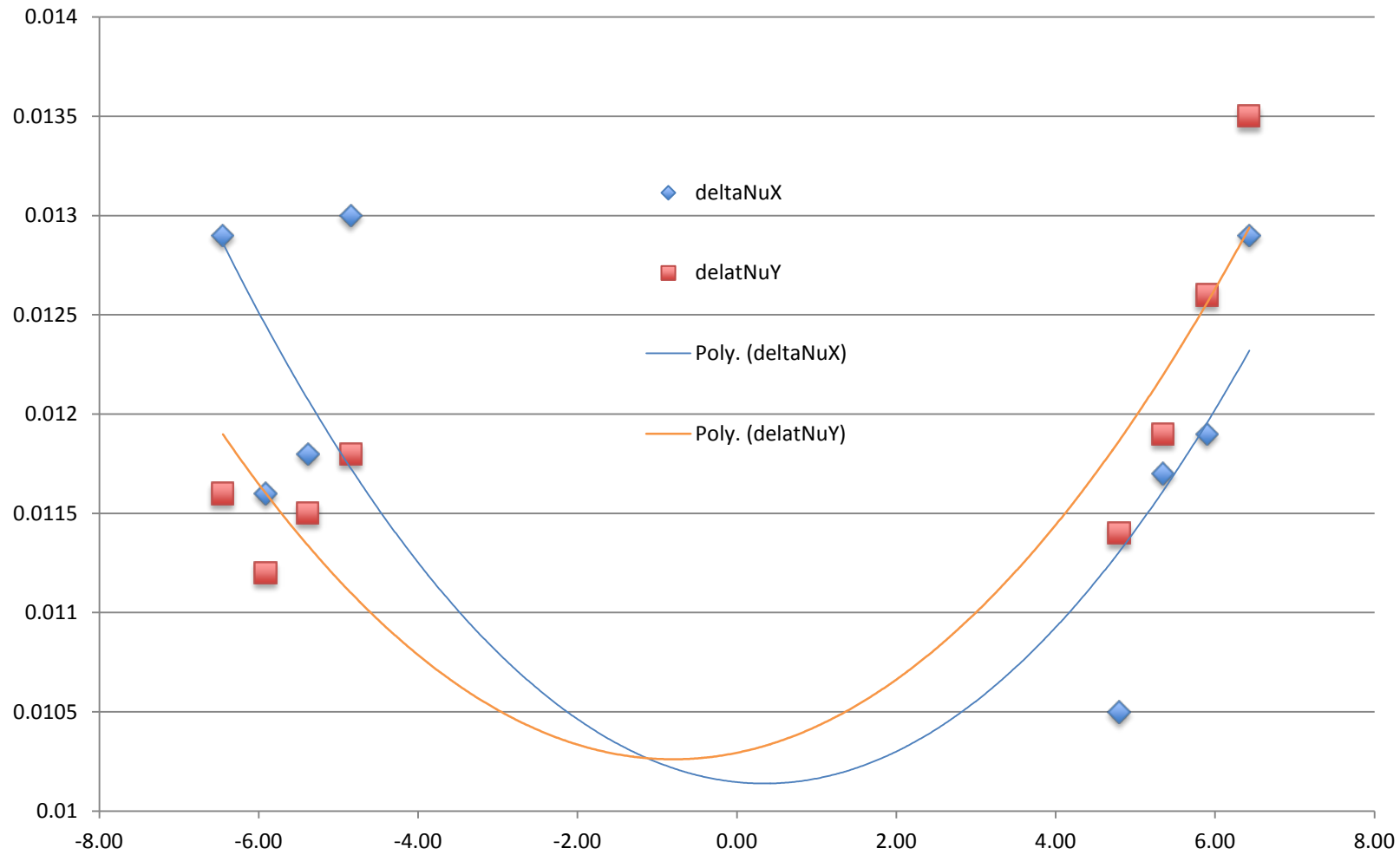
— Blu_Horiz



— Blu_Vert



— Blu_Vert



Results

Quadrupole	L, m	Δv_x	Δv_y	β_x , m	β_y , m
Mod1	-6.45	0.0129	0.0116	14.13	12.70
Mod2	-5.91	0.0116	0.0112	12.70	12.26
Mod3	-5.38	0.0118	0.0115	12.92	12.59
Mod4	-4.84	0.013	0.0118	14.23	12.92
Kick1	4.80	0.0105	0.0114	11.50	12.48
Kick2	5.35	0.0117	0.0119	12.81	13.03
Kick3	5.90	0.0119	0.0126	13.03	13.80
Kick4	6.43	0.0129	0.0135	14.13	14.78