APEX Summary 2/23 – Beta* gymnastics

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How the session went:

-- Had 2 hours of beam time, from 12pm to 2pm.

-- Worked on a cloned ramp, pp11v7-BSFtest, to avoid any unwanted changes to the operational ramp (pp11v7).

-- <u>APEX plan:</u> un-squeeze beta* by 10% in IR6 for Blue beam only while at store with a 12x12 ramp; this allowed running in parallel with R. Michnoff et al.

-- <u>Team:</u> M. Bai for optics measurement, A. Marusic & S. Tepikian for Online Model and wfgMan support.

Working on a cloned ramp…

- … it can save a Run!!

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- After activating the changes and taking care of PS limits, we can see changes in the tunes and coupling.
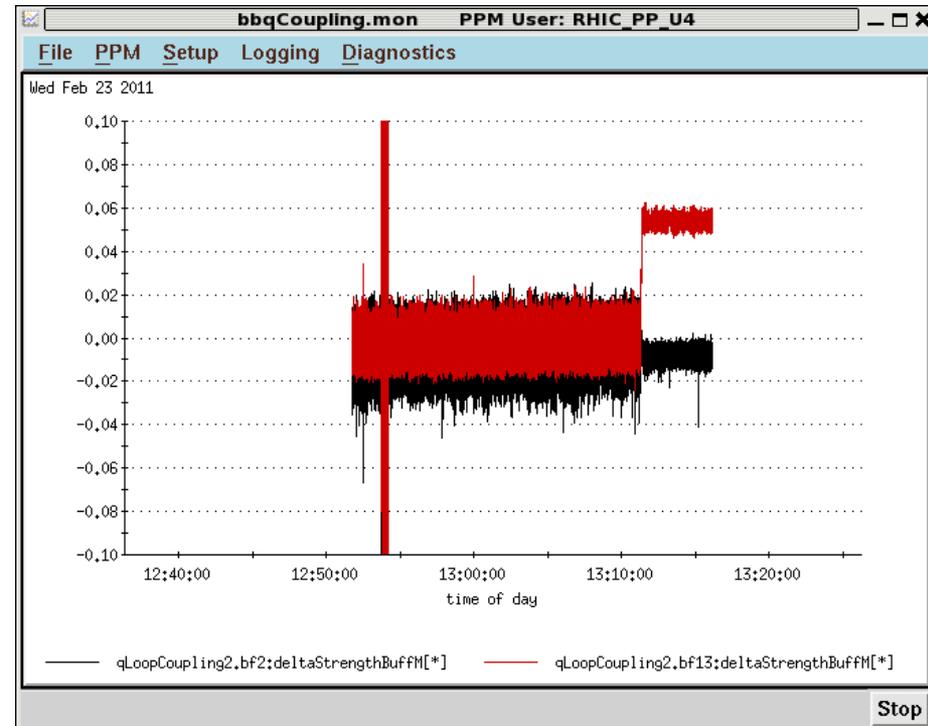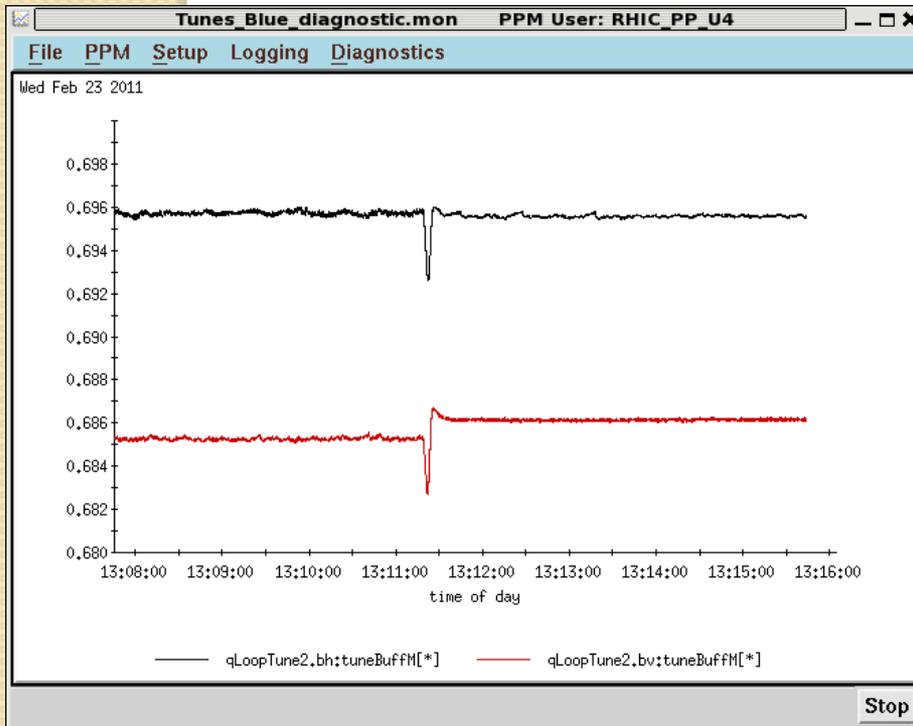
Optics Measurements

- Un-squeezing is effectively seen by Mei's measurements:

BEFORE

Beta* at IPs	IP2	IP4	IP6	IP8	IP10	IP12
H_b*	3.60	5.66	0.79	0.56	8.02	5.37
H_b*sd	0.008	0.007	0.014	0.010	0.008	0.006
H_s*	0.01	1.17	0.69	0.01	1.02	0.08
V_b*	2.99	7.06	0.73	0.74	7.41	6.58
V_b*sd	0.006	0.036	0.000	0.001	0.066	0.059
V_s*	−0.20	−1.24	0.62	−0.01	0.44	−0.37

AFTER

Beta* at IPs	IP2	IP4	IP6	IP8	IP10	IP12
H_b*	3.73	5.55	0.87	0.54	8.55	5.24
H_b*sd	0.035	0.050	0.000	0.000	0.182	0.024
H_s*	−0.08	1.35	0.43	−0.07	1.26	0.17
V_b*	2.84	6.47	0.76	0.75	7.44	6.35
V_b*sd	0.011	0.078	0.000	0.001	0.069	0.004
V_s*	−0.27	−0.84	−0.53	−0.03	0.95	−0.04