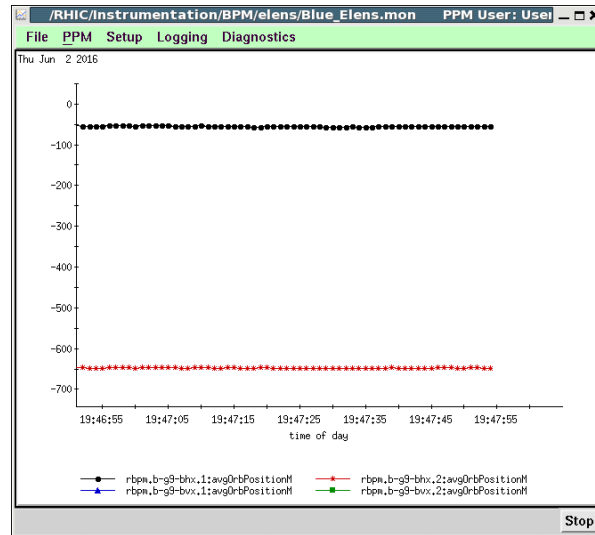
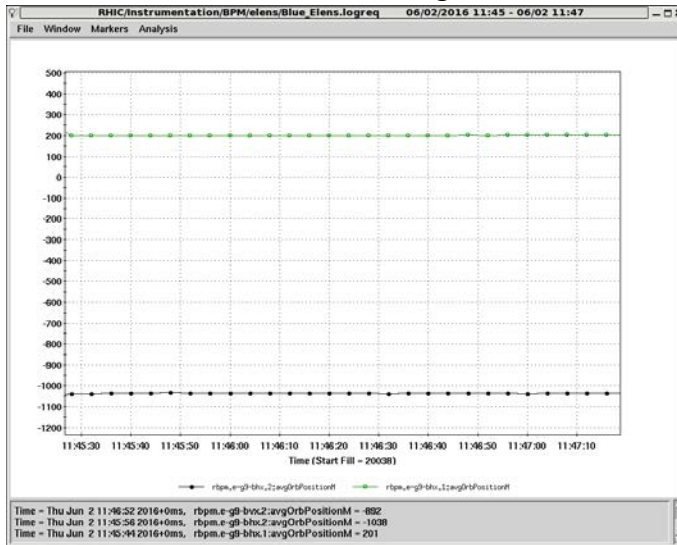


Vertical Angle

ion beam: $BPM2 - BPM1 = 4811 - 9473 = -1662 \text{ um}$

e-beam : $BPM2 - BPM1 = -892 - 887 = -1779 \text{ um}$

the angle between e-ion = 0.076 mrad



new Horizontal Angle

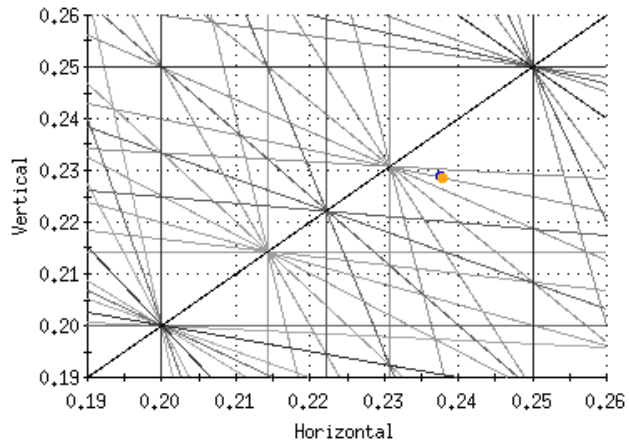
ion beam: $BPM2 - BPM1 = -648 - (-57) = -591 \text{ um}$

e-beam : $BPM2 - BPM1 = -1038 - 201 = -1239 \text{ um}$

the angle between e-ion = 0.4 mrad (was 0.68mrad)

Plane	Acquire	Start Tune	End Tune
Blue_Hor	YES	0.2	0.25
Blue_Ver	YES	0.2	0.25
Yellow_Hor	YES	0.2	0.25
Yellow_Ver	YES	0.2	0.25

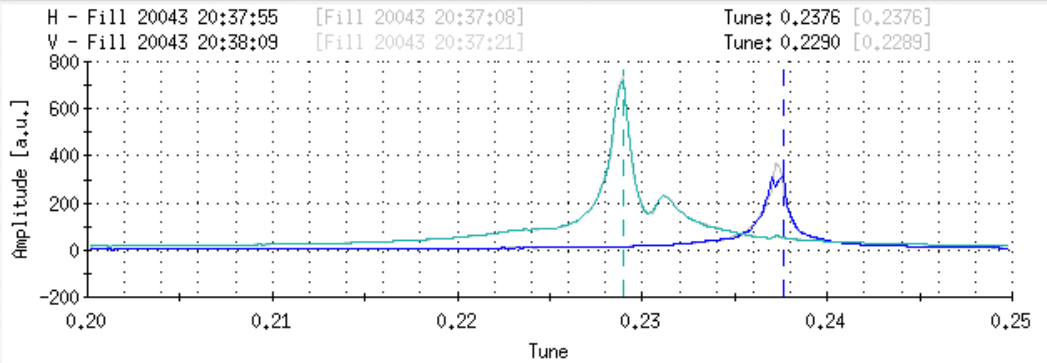
Collection Mode: Normal Gated



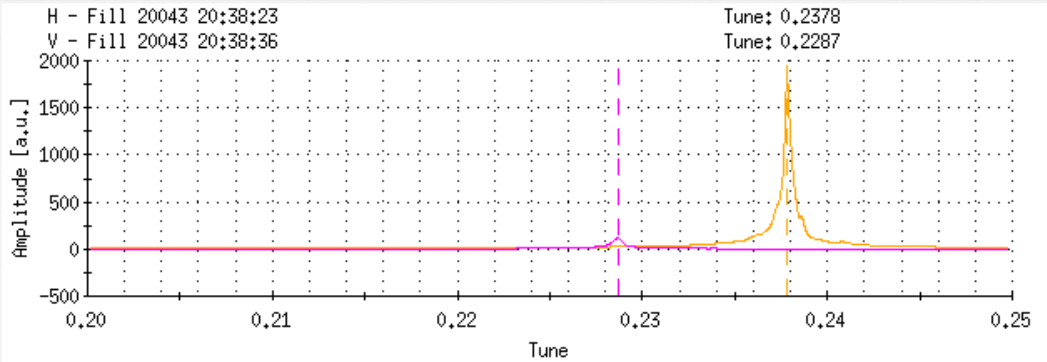
Both Blue Yellow

Thu Jun 2 20:38:35 2016: Data collection complete

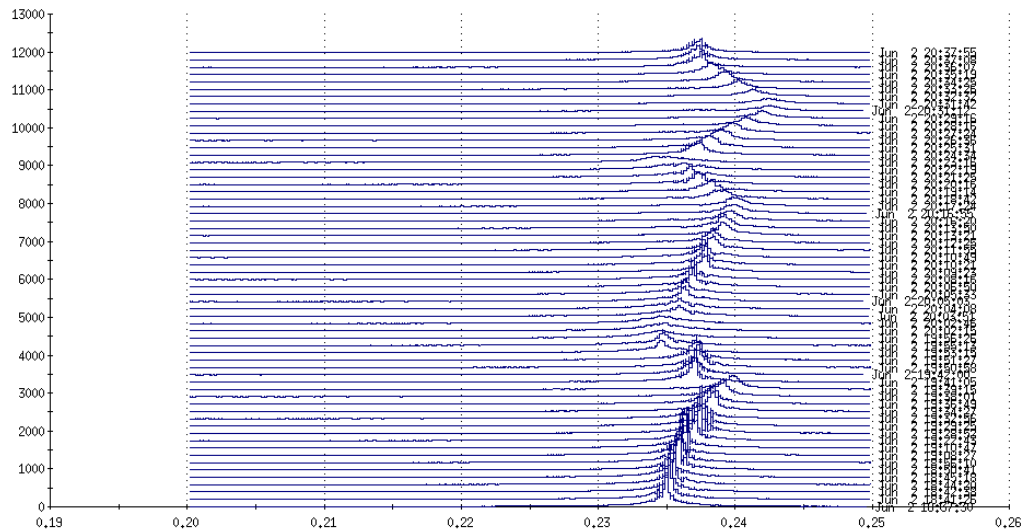
Hor A P T C BLUE Ver A P T C



Hor A P T C YELLOW Ver A P T C

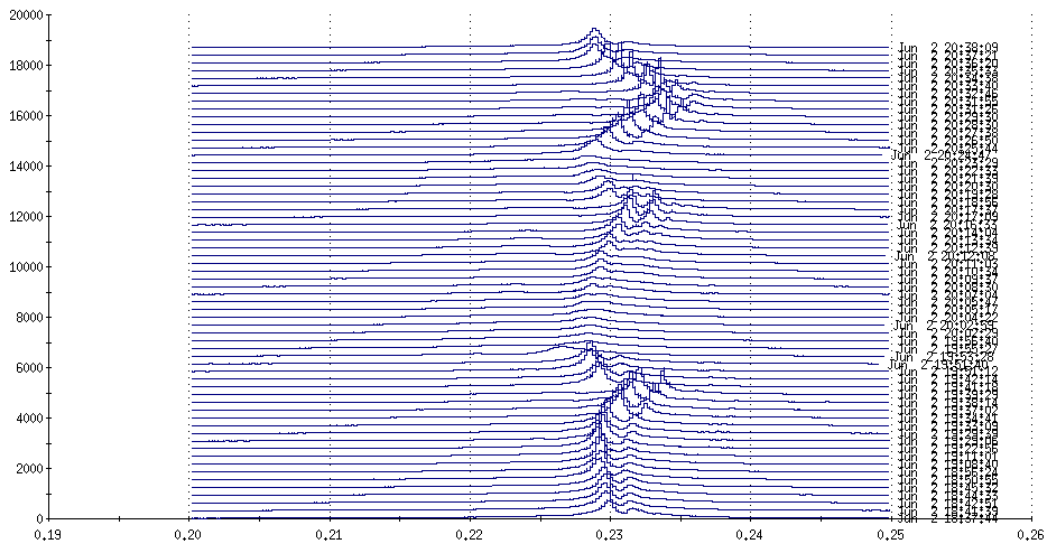


Window



63 arrays successfully read and displayed

Window



62 arrays successfully read and displayed

1. E-lens main solenoid fields were ramped to 5 T this morning. Tested Blue lens up to 650 mA electron beam current, and Yellow lens up to 530 mA.
2. Accelerated 28x28 bunches (dxAu) to 31.2 GeV/nucleon; rebucketed and turned on stochastic cooling in Yellow. Stochastic cooling approximately maintained the transverse emittance of the Au beam.
3. Reduced horizontal angle in IR10 from 9 to 4.5 mrad to allow for alignment of d beam with the Blue electron lens.
4. Using eBSD aligned **Blue e-lens** with d beam with 100 mA e-beam current. Main change was -2.5 mm in horizontal d beam position. Only small changes in vertical plane. Had good guidance from e-lens BPMs.
5. **Scan #1:** $\sigma_e = 0.71$ mm, no bb collisions, e-beam current 0 - 480 mA (~100 mA step size), BTFs.
6. Small angle adjustment in Blue lens (+0.25 mrad in hor, zero in ver).
7. **Scan #2:** $\sigma_e = 0.71$ mm, 2x bb collisions, e-beam current 0 - 600 mA (100 mA step size), BTFs.
8. **Scan #3:** $\sigma_e = 0.59$ mm, 2x bb collisions, e-beam current 600 - 0 mA (100 mA step size), BTFs.
9. **Scan #4:** $\sigma_e = 0.59$ mm, no collision, e-beam current 0 - 500 mA (100 mA step size), BTFs.
10. **Scan #5:** $\sigma_e = 0.52$ mm, no collisions, e-beam current 500 - 0 mA (100 mA step size), BTFs.

Comment: d+Au lattice not built for head-on beam-beam compensation, i.e. phase advance between IP8 and e-lens is not multiple of π