

PHENIX Run-15 Status

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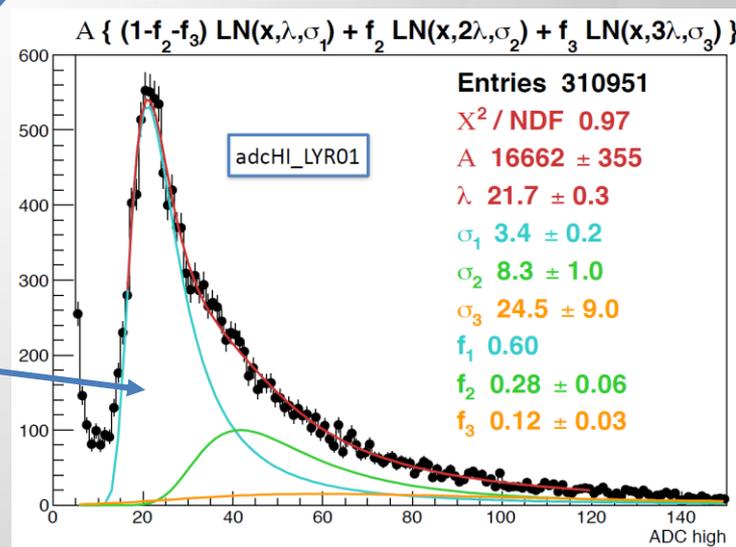
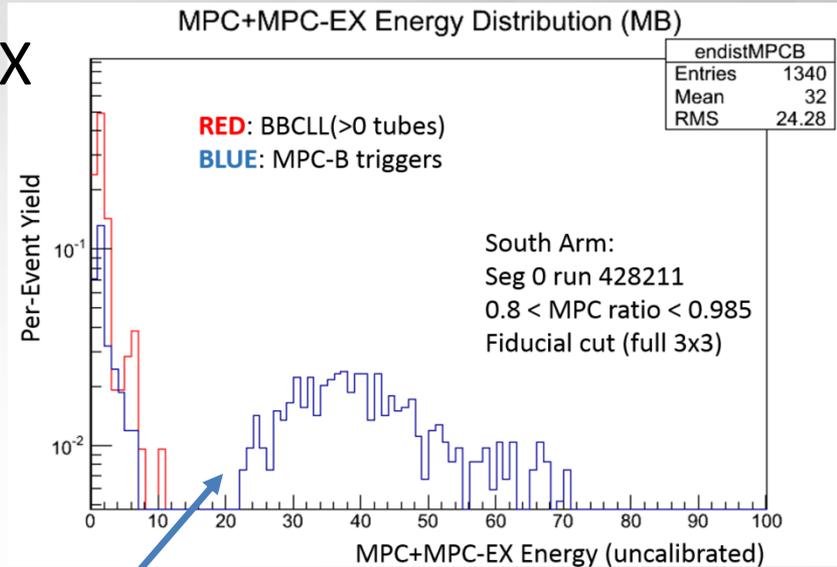
FVTX High Multiplicity trigger

- Have 200M triggered events (goal is 300M).



MPC-EX update

- Both MPC-EX N,S running in PHENIX DAQ since 3/17
 - Final timing adjustments completed 3/26
- Working on detector cooling to reduce leakage currents
 - OK for Run-15, improve for Run-16
- Improved efficiency
 - Reduced “Stop the DAQ” conditions
- Offline analysis working on geometry and calibrations
 - Clear evidence of matched MPC/MPC-EX showers in MPC-triggered events
 - MPC-EX Energy calibration underway

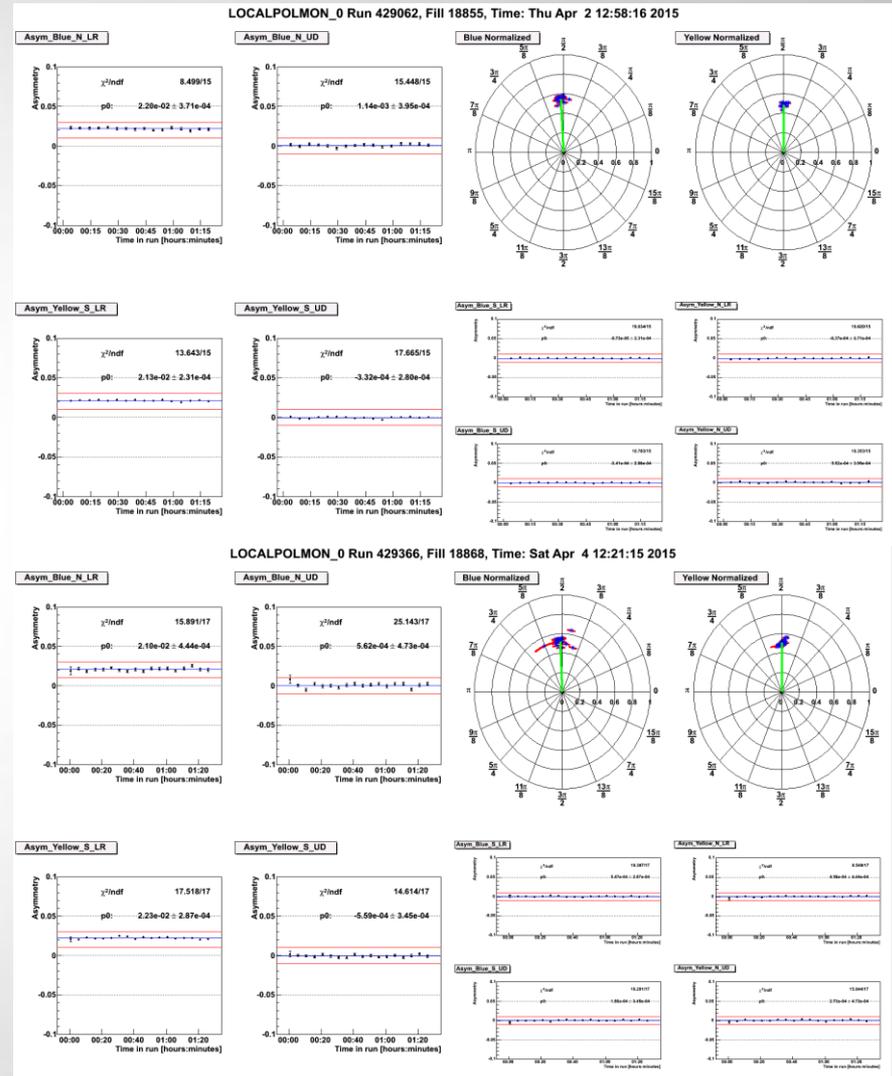


PM Meeting

PHENIX

Local Pol.

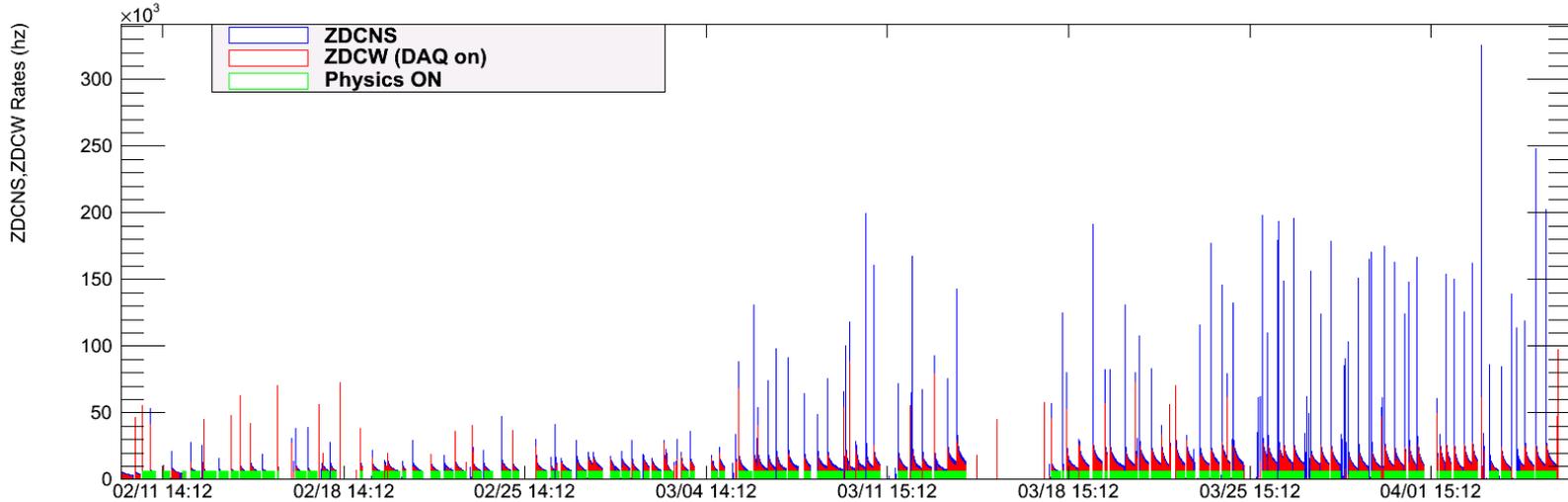
- Before and after STAR rotator change to longitudinal look the same.



PHENIX Efficiency

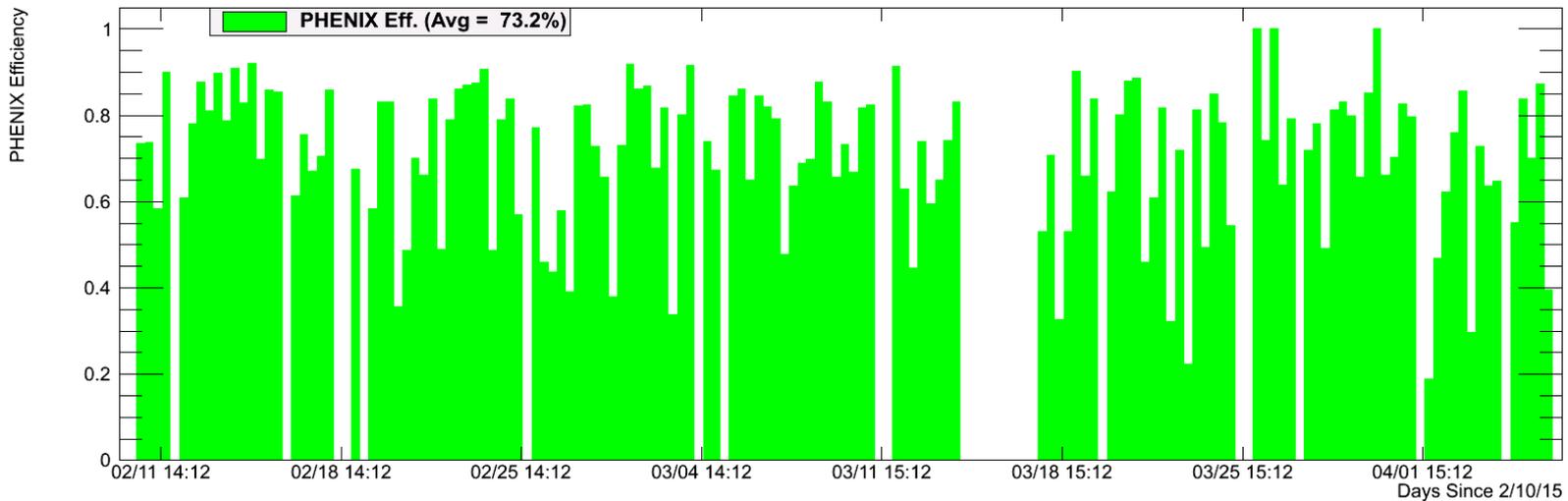
2015 200 GeV pp

Mon Apr 6 12:01:03 2015



PHENIX Efficiency vs Day

Mon Apr 6 12:01:24 2015



Luminosity Progress

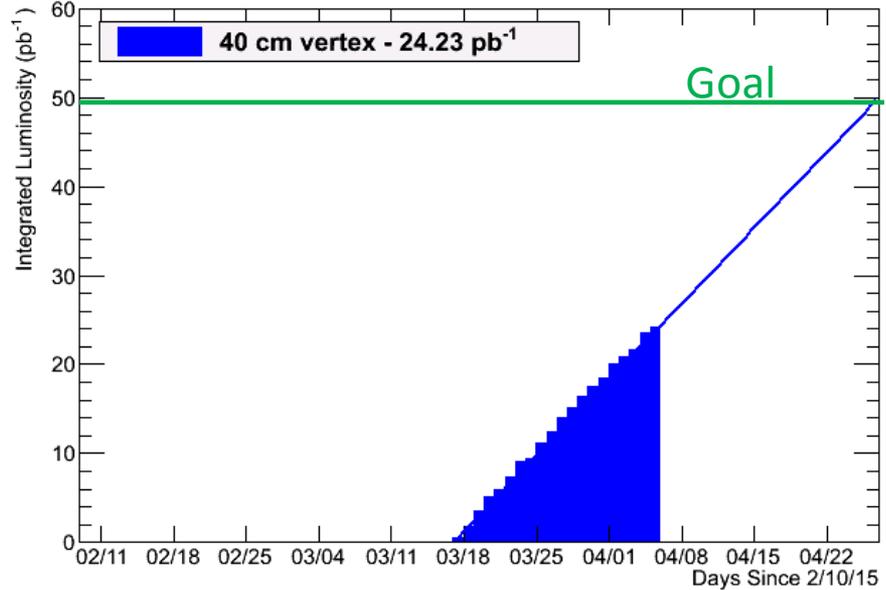
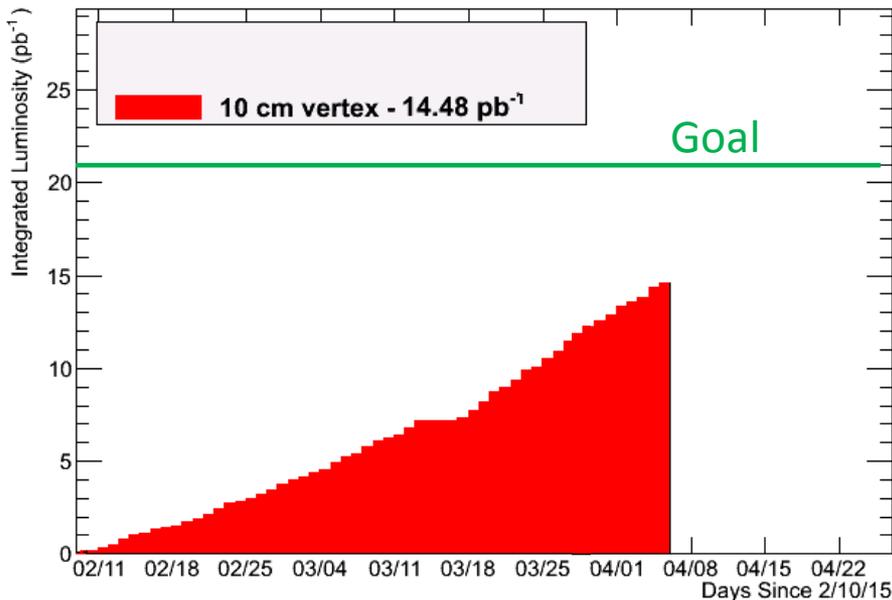
- RHIC projections (<http://www.rhichome.bnl.gov/RHIC/Runs/RhicProjections.pdf>) gave Run-12 achieved delivered luminosity as **$9.3 \text{ pb}^{-1}/\text{week}$** and **$22 \text{ pb}^{-1}/\text{week}$** max expected in Run-15 (after 5 weeks running).
- Converting to our recorded luminosity: **$4.5 \text{ pb}^{-1}/\text{week}$** and **$10.1 \text{ pb}^{-1}/\text{week}$** (for the $|z| < 40\text{cm}$ program) and **$1.6 \text{ pb}^{-1}/\text{week}$** and **$3.85 \text{ pb}^{-1}/\text{week}$** (for the $|z| < 10\text{cm}$ program)

PHENIX Integr. Sampled Lumi vs Day

Mon Mar 30 12:00:20

MPC-EX Integr. Sampled Lumi vs Day

Mon Apr 6 12:00:24 2015

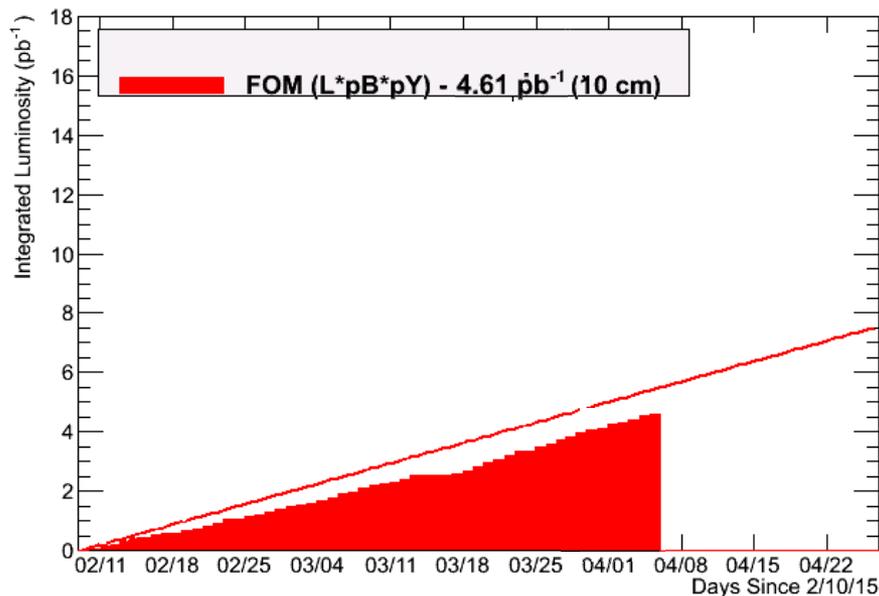


FOM Progress

- RHIC projections (<http://www.rhichome.bnl.gov/RHIC/Runs/RhicProjections.pdf>) gave Run-12 achieved delivered luminosity as **$9.3 \text{ pb}^{-1}/\text{week}$** and **$22 \text{ pb}^{-1}/\text{week}$** max expected in Run-15 (after 5 weeks running).
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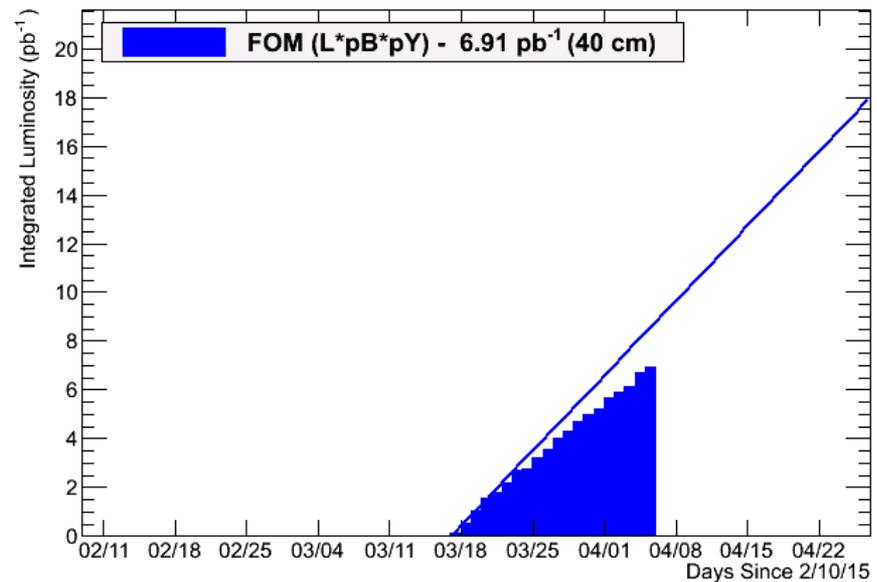
PHENIX Integr. FOM vs Day

Mon Mar 30 12:00:21



MPC-EX Integr. FOM vs Day

Mon Apr 6 12:00:24 2015



Summary

- Taking physics data for HF in Muon and Central arms.
- MPC-EX now taking physics data (with some remaining issues being chased down).
- New High Multiplicity trigger approaching 300M triggered events.



Backup



Progress Towards Physics Goals (p+p)

- Two physics programs:
 - Forward direct gamma physics with the MPC-EX
 - p+p @ 200 GeV with transverse polarization for 9 weeks [Physics driven goal is **50 pb⁻¹** recorded within $|z| < 40$ cm and $\langle P \rangle = 60\%$]
 - Heavy Flavor physics using the F/VTX
 - p+p @ 200 GeV with transverse polarization for 9 weeks [Physics driven goal is **21 pb⁻¹** recorded within $|z| < 10$ cm and $\langle P \rangle = 60\%$]
- In our BUP,
<https://indico.bnl.gov/getFile.py/access?resId=0&materialId=0&confId=764>) we state that we assume PHENIX uptime 70%, fraction of events within +/- 10 cm (25%) and +/- 40 cm (70%).

