PHENIX Run-15 Status

Douglas Fields

PHENIX Run-15 Run Coordinator

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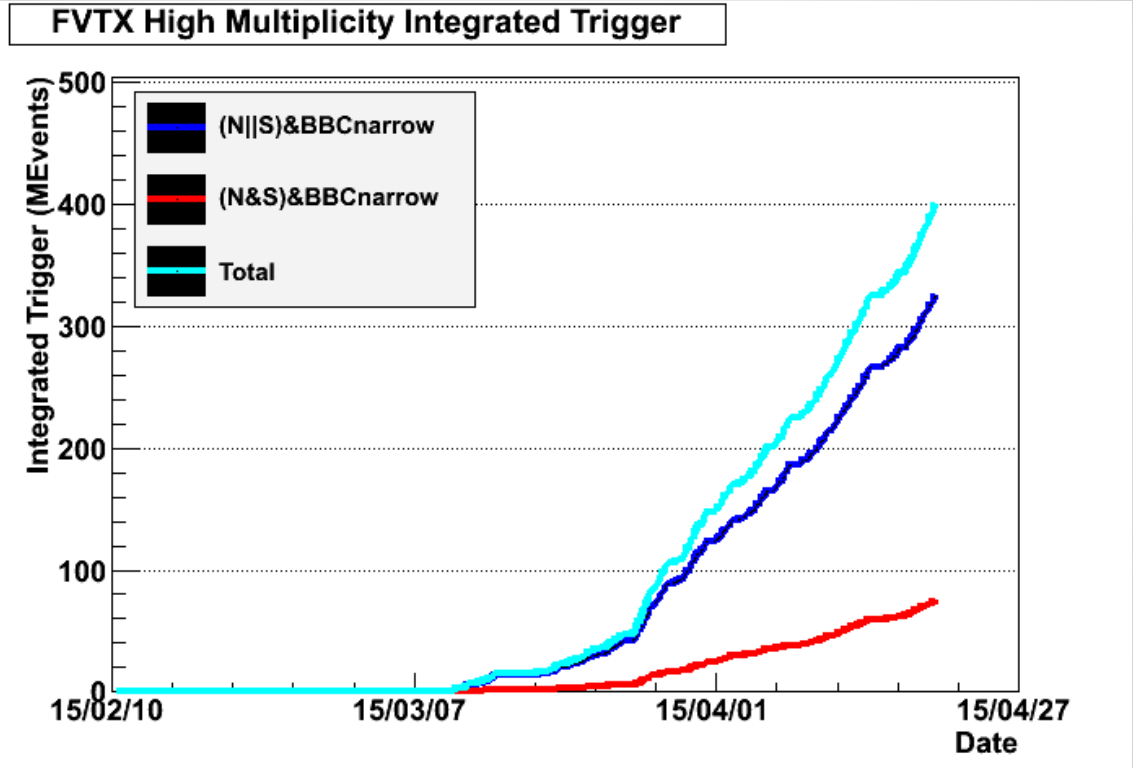
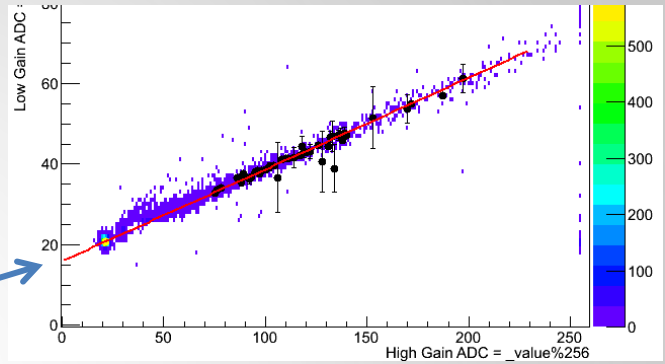
FVTX High Multiplicity trigger



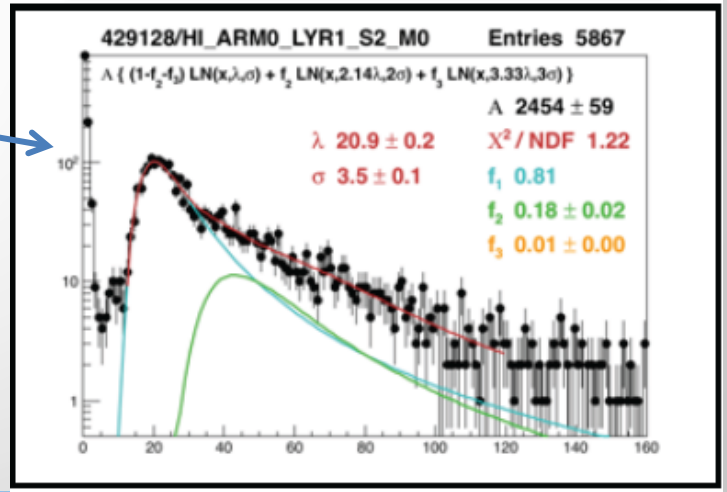
MPCEX update

- Detector running well, taking data
- Offline analysis working on calibrations:
  - High/Low gain ratio calibrations working
  - MIP calibration of MPC-EX minipad gains making progress
  - MPC calibration underway (complicated)

High/Low Channel Calibration

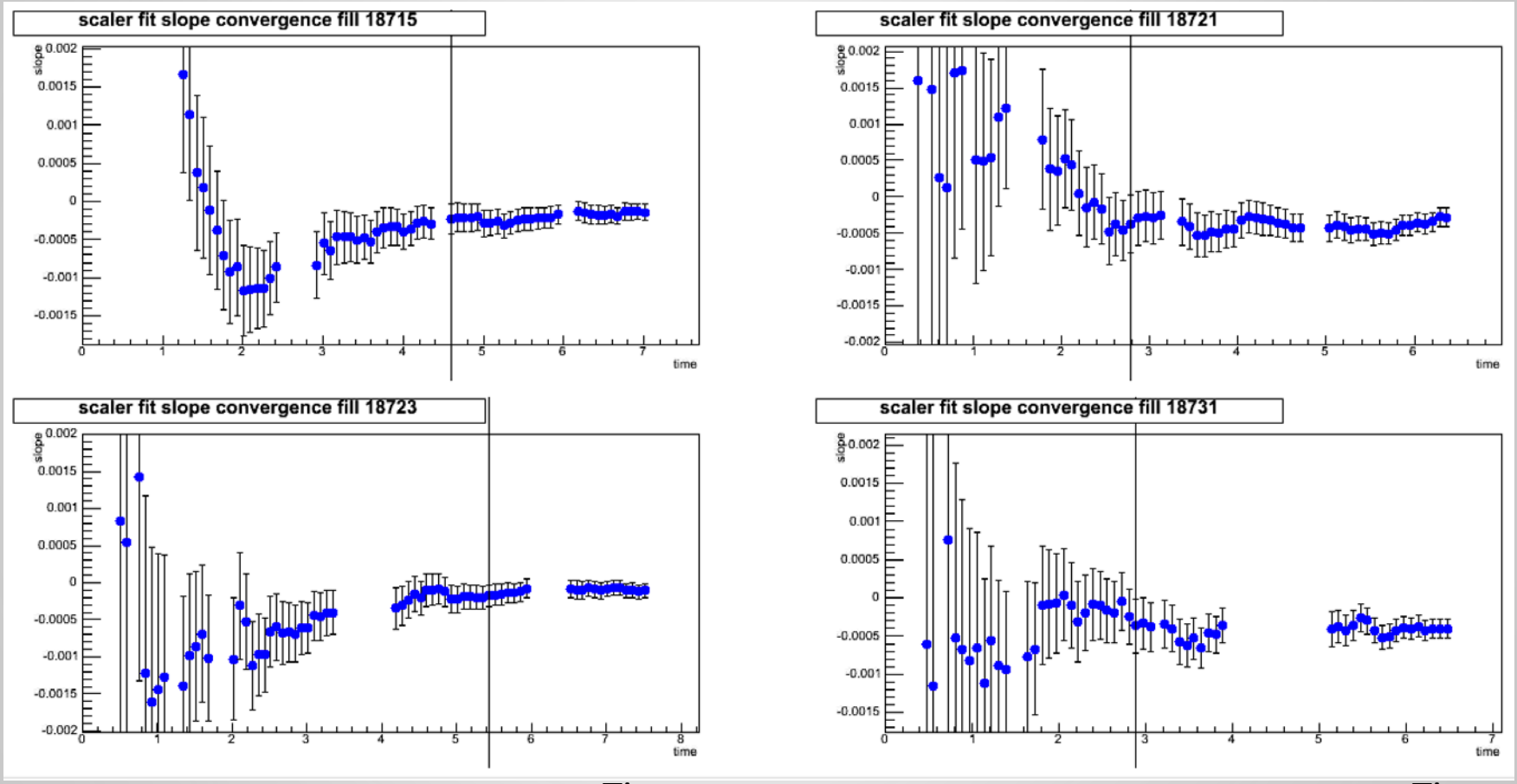


Double-Landau fit to MIPs in minipads:



Time Meeting

Local Polarimeter Determination of Polarization Loss



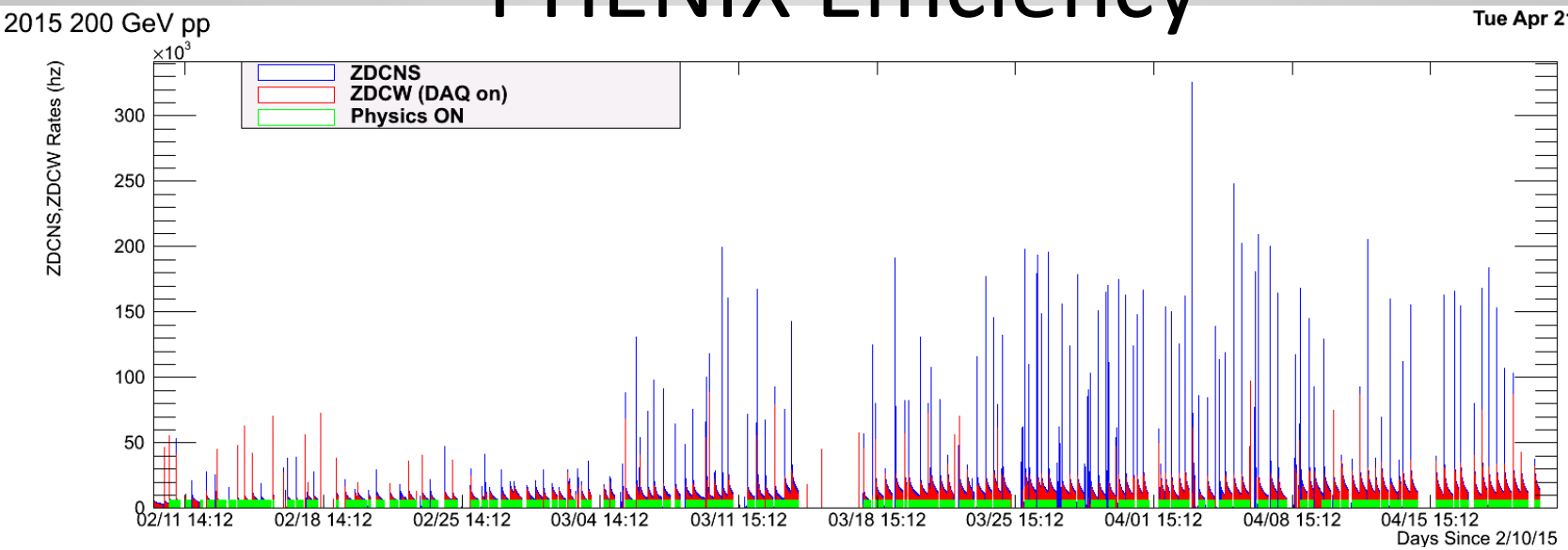
Slope of Local Pol. Asymmetry Loss

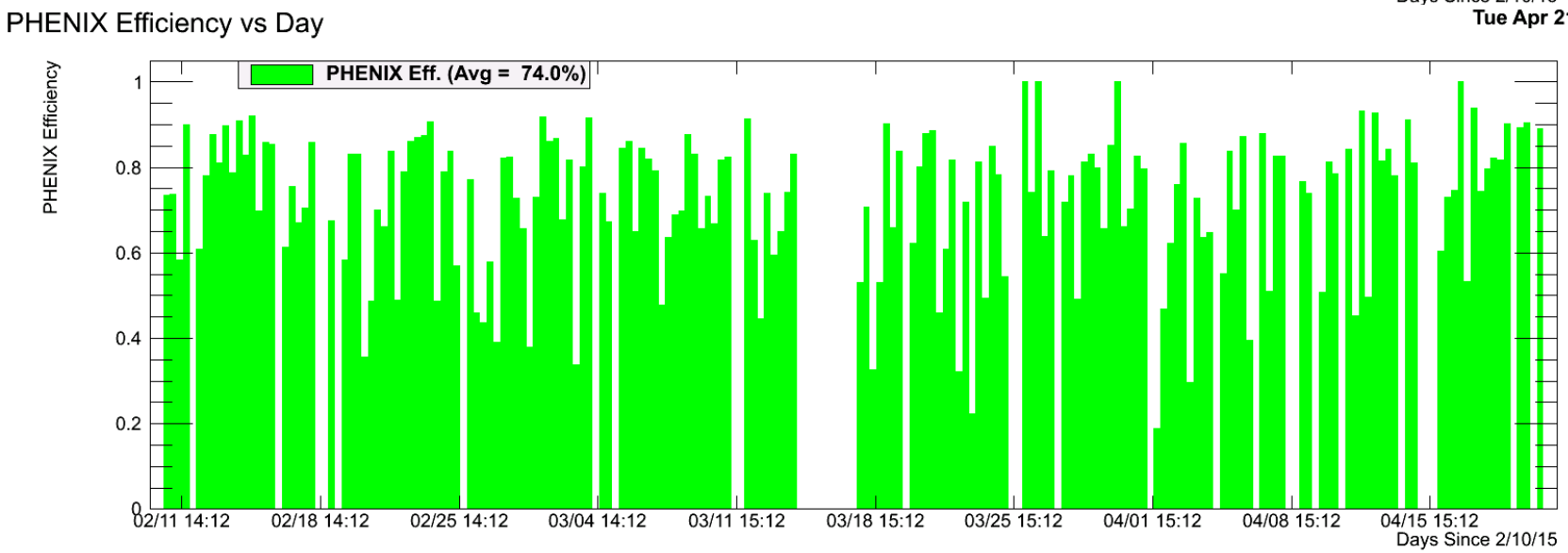
Time

Time

Time Meeting

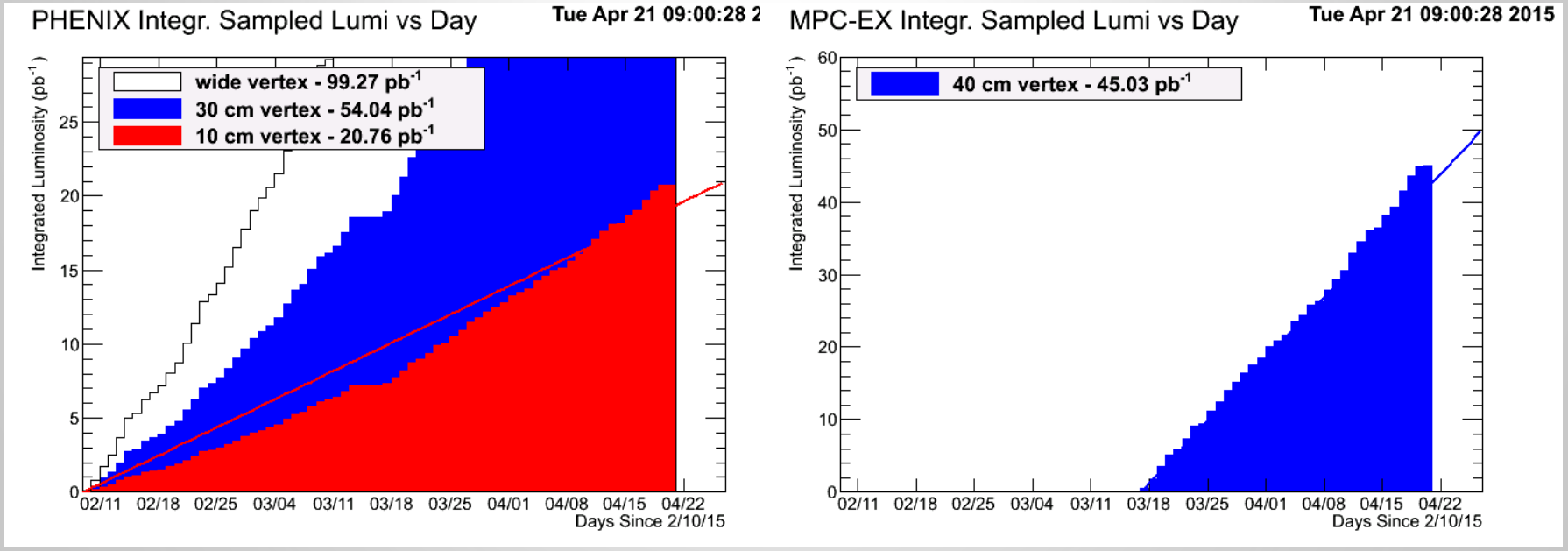
PHENIX Efficiency





Luminosity Progress

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



FOM Progress

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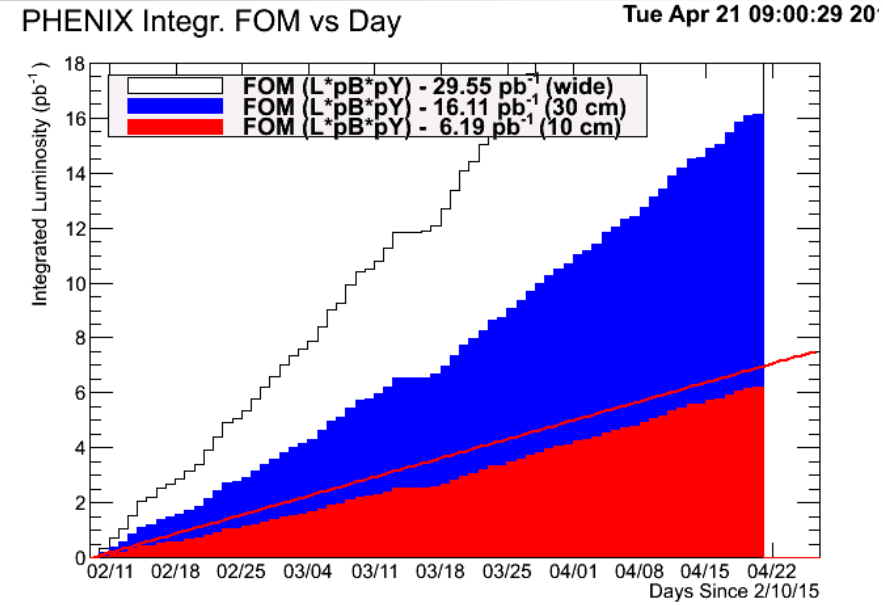
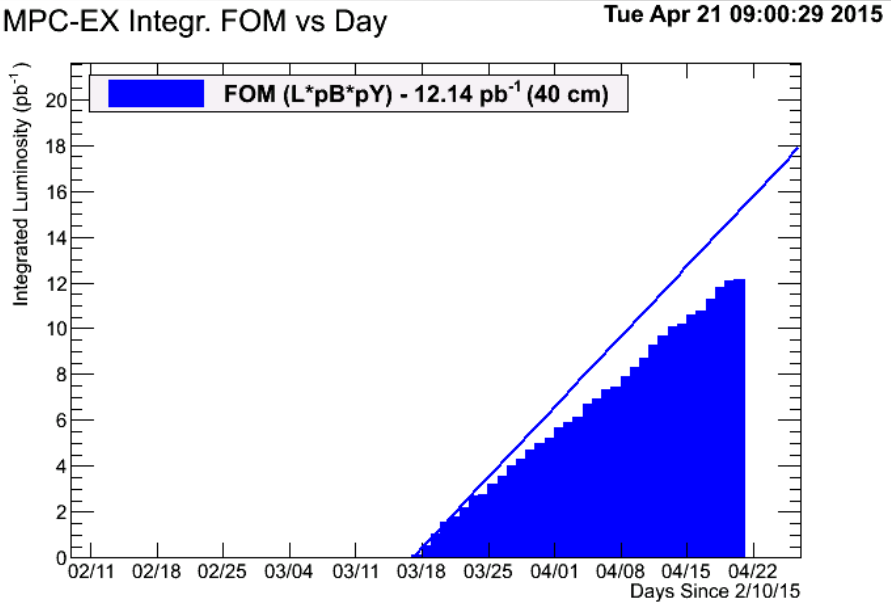
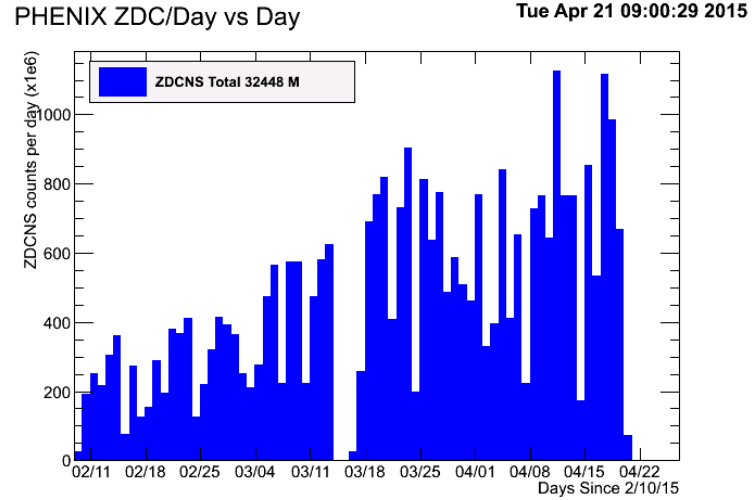
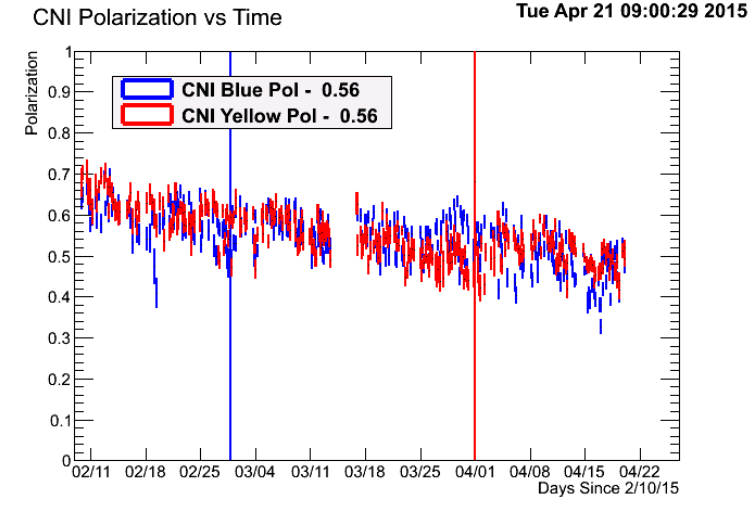
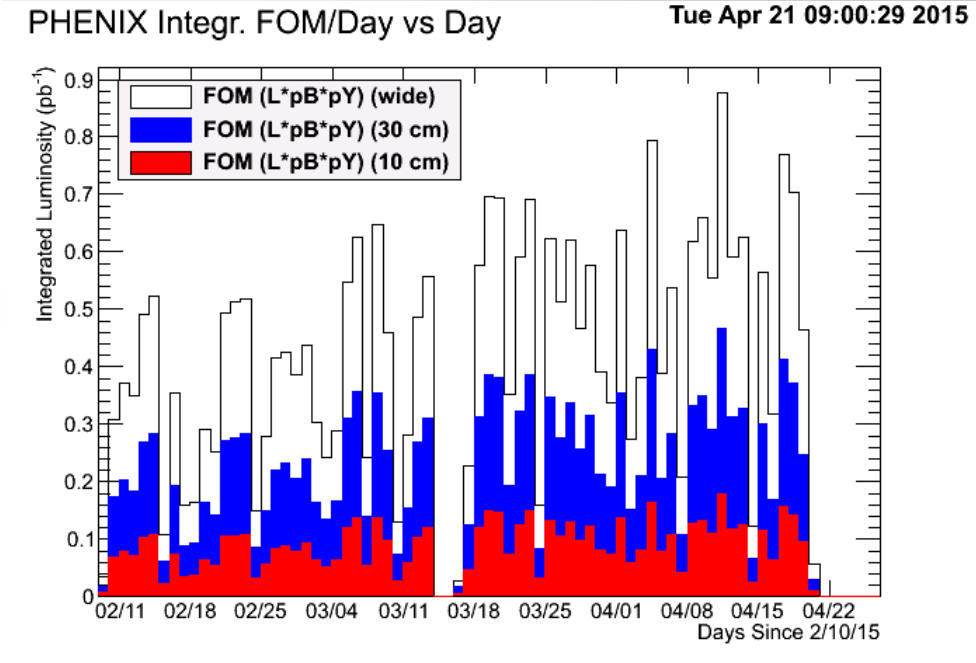




PHENIX FOM Progress







Summary

- Taking physics data for HF in Muon and Central arms.
- MPC-EX continues taking physics data and offline analysis ongoing.
- High Multiplicity trigger approaching >400M 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 ***<P> = 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 ***<P> = 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%).