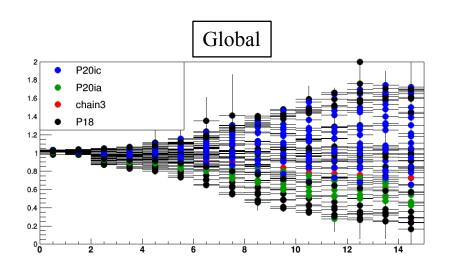
# Run 17 BEMC Calibration

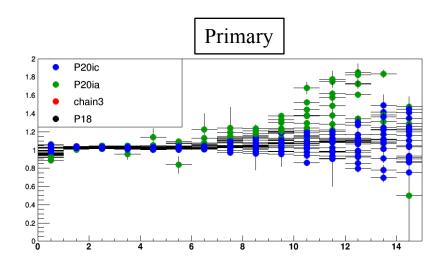
Jae D. Nam

Temple Univ.



## Charge ratio comparison

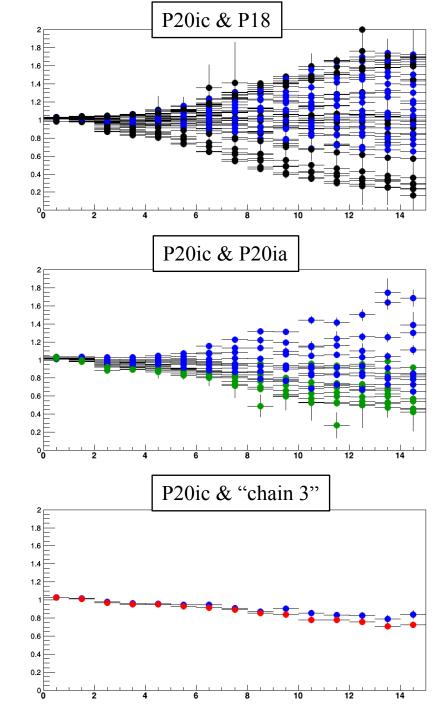




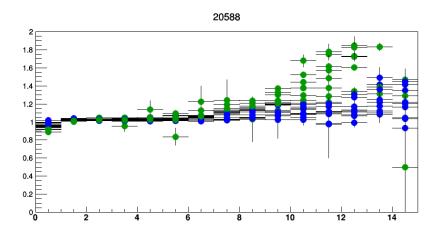
- Comparison between 4 different productions
  - P20ic: Most recent production (test sample of 48 runs, 3 runs/fills×15 + 3)
  - P20ia: Incorrect gridleak configuration
  - Chain 3: "test 3" sample identical to P20ic w/ different runlist
  - P18: Initial production
- The average trend of P20ic seems to be where we want it to be although it has a much larger spread.
- The discrepancy between global and primary is not as dramatic as P20ia



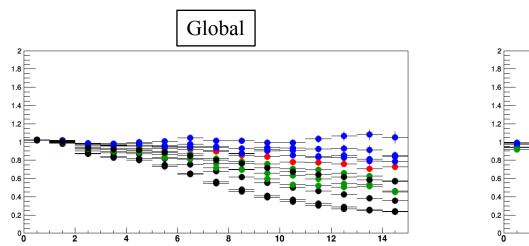


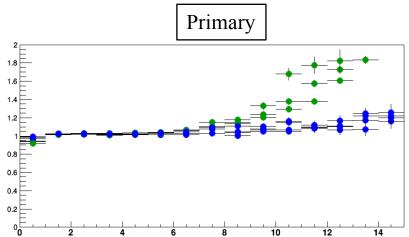


#### • Fill list matched comparison



### Fills used in TPC calibration



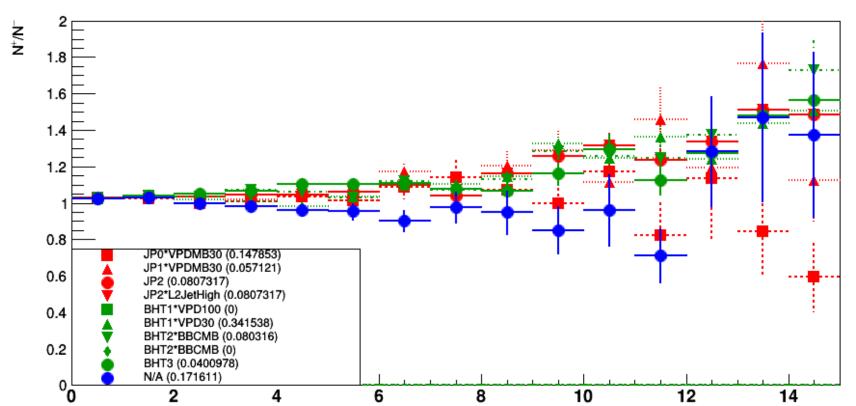


- Comparison between fills that were used for TPC calibration.
  - Optimal high- $p_T$  behavior seen with primary tracks with P20ia.
  - Good behaviors in terms of the trend and spread with global.



## **Trigger**

P1: Fill 20550



- Trigger dependence in charge ratio relieved greatly.
  - All fills: <a href="https://drupal.star.bnl.gov/STAR/system/files/trigger\_1.pdf">https://drupal.star.bnl.gov/STAR/system/files/trigger\_1.pdf</a>





## Summary

- A sample of P20ic has been tested.
  - Improvement in charge ratio in high- $p_T$
  - Somewhat larger spread in the ratio (global) in comparison to P20ia.
  - Optimal behavior seen with the fills used in TPC calibration.
  - Trigger dependence has been greatly relieved.