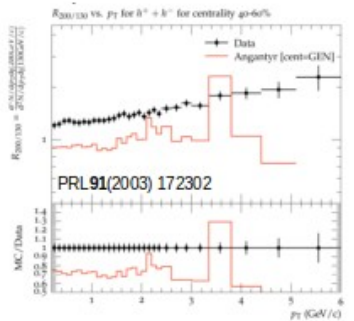
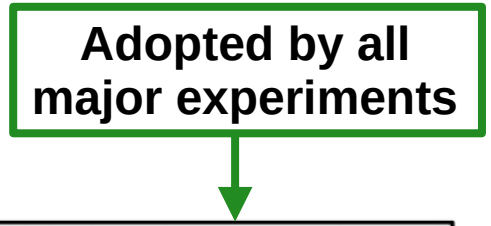
HepMC

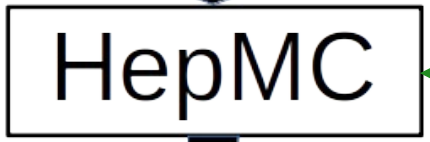
HEPData → Rivet

Comparison to data




PYTHIA
AMPT
ANGANTYR
HIJING
JETSCAPE
Monte Carlo Model
JEWEL
EPOS
PHSD
smash


Adopted by all major experiments

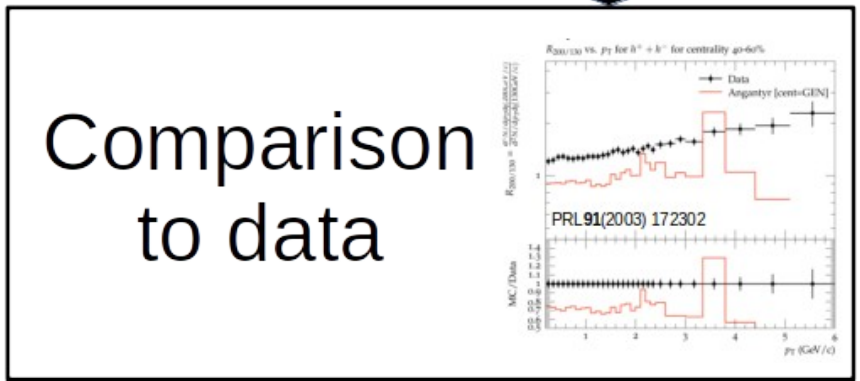

HepMC


Now standard! See
HEPMC in HI Workshop


HEPData


Rivet


Works with HI analyses!*
No fitting →no HBT


Comparison to data
Data
Angantyr [cent=GEN]
PRL91(2003) 172302

Experimentalist benefits

- Faster predictions from theorists
- More citations!

Adopted by all major experiments

HepMC

Now standard! See HEPMC in HI Workshop

HEPData

Rivet

Works with HI analyses!*
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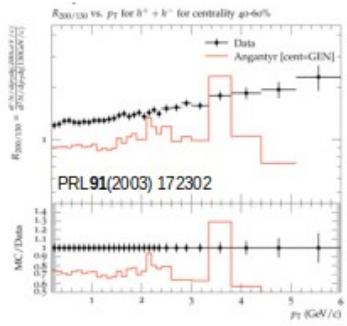
Comparison to data



Theorist benefits

- Easy to compare to multiple measurements
- No formatting data, digging through papers for kinematic selections

Experimentalist benefits

- Faster predictions from theorists
- More citations!

Field benefits

- Data and analysis preservation
- Improves analysis reproductibility
- Conversations about which analysis details are important
- Higher fidelity data/model comparisons
- More efficient, better use of resources
- Easier to compare to more data (inc. Bayesian parameter estimation)

Adopted by all major experiments

HepMC

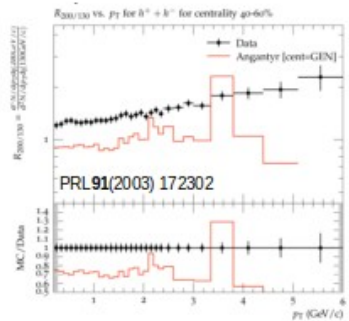
Now standard! See HEPMC in HI Workshop

HEPData

Rivet

Works with HI analyses!*
No fitting → no HBT

Comparison to data



Theorist benefits

- Easy to compare to multiple measurements
- No formatting data, digging through papers for kinematic selections

Resources

- Install Rivet or load it on an existing farm
- Follow a Rivet tutorial
  - Slides and recordings from Rivetizing Heavy Ion Collisions at RHIC
- Course-based Undergraduate Research Experience
  - Implement Rivet analysis in semester
  - 5 semesters/20 students [10 women, 5 minorities, 3 non-traditional]
- 15 additional undergraduates → undergraduate friendly!

Request that the LRP suggest using Rivet.