LLNL Progress and Plans

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LLNL-PRES-XXXXXX
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LLNL Heavy Ion Group: Personnel/Effort

- From last time: *have multiple openings for postdocs looking to fill ASAP*
  - *Hope to have two new group members by the next meeting of this consortium!*
    - Don't have these positions filled yet, but are conducting interviews in the next month
    - Expect one or both positions to be filled by late spring

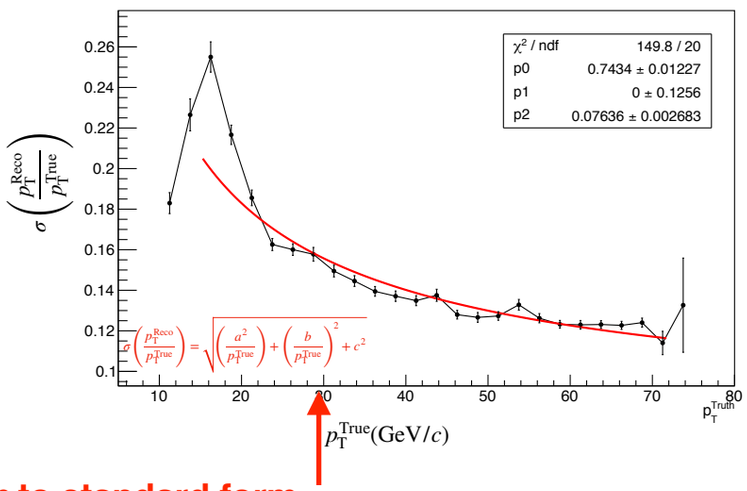
- Opportunities for students to come to LLNL for a period
  - Both graduate and undergraduate
    - Concluding successful collaboration with Fernando from UCB
    - Very happy to do something like this again in the future

LLNL Heavy Ion Group: Progress

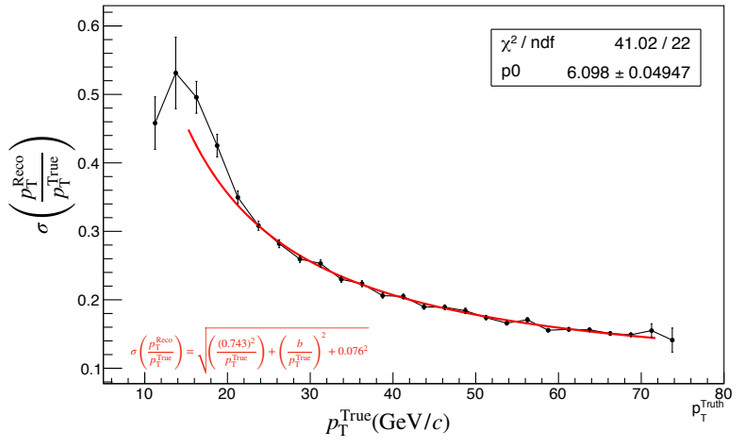
- LLNL deliverable: supervision a student from UCB for **summer**
  - Fernando Torales-Acosta
  - Studies of jet performance in sPHENIX
  - Apply method used by ATLAS and CMS for MC-based jet energy scale calibration
  - **Extended performance studies to include quantifying jet energy resolution and understanding how it changes from *pp* to AA**

Extended through fall semester

JER in pp (R=0.4)



JER in AA w/ Parameters from pp



Parameters ***a*** and ***c*** taken from pp JER

Fit JER in *pp* to standard form
Two parameters (*a*, *c*) should depend only on the detector while *b* should depend on background/noise fluctuations

If only effect of UE on AA JER is to increase noise ↔ JER describable in terms of the same *a* and *c* but an increased *b* term

Success of procedure shows that JER uncertainty can be derived by a series of studies each constraining individual terms and that *a* and *c* can be constrained by standard methods used in *pp*