Contribution ID: **817** Type: **Poster**

Calorimeter Calibrations Methods from RHIC to EIC

Tuesday, 5 September 2023 17:30 (2h 10m)

With the advent of the Electron Ion Collider, which will involve many diverse calorimeter systems, and the switch to SiPM readouts which has been occuring over the past ˜decade, new techniques in calorimeter calibrations are needed. These should address for example, gain tracing vs time, where siPM's can be more sensitive to temperature fluctuations, and also position dependencies in response, due to siPM light collection being less uniform than with traditional PMT's. We review several calibrations methods used for calibrating both hadronic and electromagnetic calorimeters at RHIC, LHC, and elsewhere, and also explore some possibilities for use at the upcoming EIC Facility. This includes several novel techniques developed for use at RHIC by our group. We will discuss calorimeter systems being planned for the ePIC experiment and specifically how the various methods, including ours, can be used there.

Category

Experiment

Collaboration (if applicable)

Primary authors: BRYAN, Justin (Ohio University); REGMI, Sijan (Ohio University); FRANTZ, Justin Edward

Presenter: FRANTZ, Justin Edward

Session Classification: Poster Session

Track Classification: Future facilities/detectors