Contribution ID: **173** Type: **Parallel Talk**

Fluctuations of conserved charges in the canonical ensemble: confronting experimental results with theory

Monday, May 14, 2018 5:30 PM (20 minutes)

We develop, within a canonical formulation of statistical mechanics, a systematic procedure to evaluate fluctuations of conserved quantities, such as baryon number, measured within an experimental acceptance. In nearly all experiments the baryon number fluctuations are approximated by the corresponding signals for net-proton measurements. We will discuss the validity and, in particular, the energy dependence of this approximation and provide quantitative estimates of differences between net-baryon number and net-proton fluctuations. Finally, we will compare our results up to the 4th cumulants with the corresponding measurements from the STAR and ALICE experiments.

Content type

Experiment

Collaboration

Centralised submission by Collaboration

Presenter name already specified

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