19th International Conference on QCD in Extreme Conditions (XQCD 2023)

Contribution ID: **60** Type: **Talk**

Hydrodynamics of fluctuations and maximum entropy freeze-out

Thursday 27 July 2023 10:55 (25 minutes)

Fluctuations play crucial role in determining properties of the QCD equation of state and transport in heavy-ion collision experiments. Recent progress in understanding evolution of fluctuations in relativistic hydrodynamics aims at providing predictive description of the fluctuations, including their non-gaussianity. The problem of connecting the predictions of hydrodynamics with experimental measurements of fluctuations requires a description of freeze-out which, similar to hydrodynamics itself, fulfills conservation laws on event-by-event basis. The maximum entropy approach elegantly solves this long-standing problem.
[1] An, Basar, Stephanov, and Yee, Phys.Rev.Lett. 127 (2021) 7, 072301 [arxiv:2009.10742]; arxiv/221213029
[2] Pradeep, Stephanov, Phys.Rev.Lett. 130 (2023) 16, 162301 [arxiv:2211.09142]

Primary author: STEPHANOV, Misha (UIC)

Presenter: STEPHANOV, Misha (UIC)

Session Classification: Plenary session