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Type: **Talk**

Azimuthal momentum anisotropies in proton-proton collisions and other small systems

Friday, 3 August 2018 14:00 (30 minutes)

I will review recent developments in the theoretical description and understanding of multi-particle correlations in collisions of small projectiles (p/d/3He) with heavy nuclei (Au, Pb), as well as in proton+proton collisions. A main question is, whether the physical processes responsible for the observed long range rapidity correlations and their azimuthal structure are the same in small systems as in heavy ion collisions. In the latter, they are interpreted as generated by the initial spatial geometry being transformed into momentum correlations by strong final state interactions. However, explicit calculations show that also initial state momentum correlations are present and should contribute to observables in small systems. This talk provides a pedagogical survey of the various sources of momentum anisotropies and discusses their relative contributions to observables.

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