Contribution ID: **118** Type: **Parallel Talk**

Collectivity from interference

Wednesday, May 16, 2018 5:50 PM (20 minutes)

Abstract:
I discuss how second and higher order cumulant momentum anisotropies may arise
in absence of all mechanisms generally expected to cause finite anisotropy harmonics v_n,
namely in absence of initial spatial asymmetries, in absence of initial density effects and in
absence of final state interactions. The mechanism is quantum and color interference of different
particle production channels of multi-particle final states. In a simplified, QCD-inspired model
for the emission of an arbitrary number of m particles from N sources, we show in an
expansion in powers of $1/(N_c^2-1)$ and to leading order in the number of sources
that both second and higher order cumulants show many of the features observed in
proton-proton collisions,including collectivity. \\
This presentation will be based on B. Blok, D. J\"akel, M. Strikman, U.A. Wiedemann, arXiv:1708.08241, JHEP in press,
and further work in preparation.

Content type

Theory

Collaboration

Centralised submission by Collaboration

Presenter name already specified

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