Contribution ID: **66** Type: **Oral**

A Large N expansion for Minimum Bias

Wednesday 26 April 2023 15:50 (25 minutes)

Despite being the overwhelming majority of events produced in hadron or heavy ion collisions, minimum bias events do not enjoy a robust first-principles theoretical description as their dynamics are dominated by low-energy quantum chromodynamics. I will present a novel expansion scheme of the cross section for minimum bias events that exploits an ergodic hypothesis for particles in the events, and events in an ensemble of data. The expansion parameter that is identified is the number of detected particles, N. This approach enables unified treatment of small and large system collective behaviour, for instance being equally applicable to collective behaviour in heavy ion collisions and pp collisions.

Theory / experiment

Theory

Group or collaboration name

Primary author: MELIA, Tom (Kavli IPMU)

Presenter: MELIA, Tom (Kavli IPMU)

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