Contribution ID: **229** Type: **Flash-talk and poster/pre-recorded talk**

Ab Initio Coupling of Jets to Collective Flow in the Opacity Expansion Approach

Thursday 15 July 2021 19:52 (2 minutes)

Droplets of quark-gluon plasma produced in heavy-ion collisions rapidly evolve expanding and cooling. During considerable part of this dynamics the system can be described within relativistic hydrodynamics. Recently, there were some attempts to include effects of the medium motion to the jet energy loss and jet modification calculations in a variety of models. Here we will present the first principle consideration of the medium motion effects on the jet broadening and soft gluon radiation within opacity expansion approach. We will show that the developed formalism can be also applied to derive the effects of in-medium fluctuations on a wide range of the jet observables at EIC.

Preferred track

Jets & QCD at High Scales

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Session Classification: Poster Session