Study of Hadronization Dynamic with Nuclei

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Abstract

Hadronization happens at the femtometer scale, therefore comparing nuclei of various sizes is the best way to study this process. Experiments based on a broad range of reactions, like semi-inclusive deep inelastic scattering (SIDIS), Drell-Yan and heavy ion collisions, have already permitted to understand a lot about in-medium hadronization. In this presentation, we will review the models describing nuclear SIDIS and put them into perspective with our analysis of the recent data from Hall B of Jefferson Laboratory (CLAS Collaboration). The impact of these high precision data and their ability to discriminate between existing models, will be discussed. Finally, future prospects and challenges will be addressed.