Contribution ID: 113

Type: Parallel

## The Search for the Onset of Color Transparency

Wednesday, 30 May 2018 17:35 (25 minutes)

We will give an overview of a unique prediction of Quantum Chromodynamics, called color transparency (CT), where the final (and/or initial) state interactions of hadrons with the nuclear medium must vanish for exclusive processes at high momentum transfers. We will trace the progress of our understanding of this phenomenon, beginning with its confirmation in high energy phenomena, followed by investigations of the onset of CT at intermediate energies. We will present updates from a recent CT search experiment that was completed as one of the commissioning experiments of the newly upgraded experimental Hall C at the Jefferson Lab. We will also make connections between the CT experiment and the other commissioning experiments, which include experiments measuring the  $F_2$  structure function and the EMC effect. Finally, we will also discuss some new proposals that will extended the search to new unexplored phase space.

## E-mail

d.dutta@msstate.edu

## **Funding source**

US Department of Energy, grant # DE-FG02-07ER41528

Primary author: Prof. DUTTA, Dipangkar (Mississippi State University)

Presenter: Prof. DUTTA, Dipangkar (Mississippi State University)

Session Classification: Nuclear Forces and Structure, NN Correlations, and Medium Effects

Track Classification: NFS