

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 517

Type: **Contributed Talk**

## Study of Current and Target Fragmentation using $\Lambda$ Electroproduction off Nuclei

*Thursday, 15 April 2021 11:26 (18 minutes)*

The hadronization or fragmentation, where a struck quark transforms into color-neutral hadrons, is an effective tool to probe the confinement dynamics as well as the characteristic time-scales involved in the process. These time-scales elucidate our understanding of the color-neutralization and subsequent non-perturbative formation of the observed hadrons. This talk will report the first-ever analysis of the semi-inclusive deep inelastic scattering of  $\Lambda$  hyperons in the current and target fragmentation regions using the accumulated Jefferson Lab CLAS6 data-sets with deuterium, carbon, iron, and lead targets. Results on the multiplicity ratios and the transverse momentum broadening will be presented along with a highlight of the upcoming CLAS12 color propagation measurements.

This work is supported in part by the US DOE contract \# DE-FG02-07ER41528.

**Primary author:** CHETRY, Taya (Mississippi State University)

**Presenter:** CHETRY, Taya (Mississippi State University)

**Session Classification:** QCD with Heavy Flavors and Hadronic Final States

**Track Classification:** QCD with Heavy Flavors and Hadronic Final States