Fracture Functions from Λ^0 Leptoproduction for Target Remnant Description

Sereres C Johnston[1] and Lamiaa El Fassi[2]

[1]Argonne National Laboratory

[2]Mississippi State University

On behalf of the CLAS Collaboration

Abstract

Fracture functions describe the production of hadrons in the target remnant region. Similar to both fragmentation and structure functions, these non-perturbative objects are measurable, universal functions that can be extracted from experiment in one kinematic regime and used to compute reactions at different scales, factorizing and evolving in a predictable way. The CLAS EG2 data-set, with its high statistics and binning in variables such as Q^2, x_B and ν, offers a rich opportunity to extract fracture functions using electron triggered processes. This talk will describe the ongoing work to extract fracture functions from the Λ^0 yields identified in binned EG2 data.

This work is supported in part by the US DOE contracts # DE-AC02-06CH11357 and DE-FG02-03ER41528