Analysis Notes

Christopher McLauchlin

Experimental

Data Aquisition

Experimental Setup in CLAS

Design Purpose

Torus Magnet

Target Chamber

Detector Systems

Drift Chambers (DC)

Scintillation Chambers (SC)

Electromagnetic Calorimeter (EC)

Cerenkov Counters (CC)

Finding Run Information

Beam Information

Beam Energy

Beam Helicity

Beam Polarization

Target Information

Target Species

Target Polarization

Data Processing

Cooking

File Conversion

Final Information in Cooked Data

Data Analysis

Particle Identification

Electron Identification

Hadron Identification

Event Selection

Determining Event Particles

Proton / π^+ Dual Identification

Electron / π^- Disentangling

Topologies

Corrections and Special Cuts

Fiducial Cuts

Electron

Proton

π^+

π^-

Momentum Correction

Radiative Corrections

See Simulation for more information on how the simulation was performed

Bin Centering Corrections

Acceptance Corrections

See Simulation for more information on how the simulation was performed

Detector Inefficiencies

Empty Target/Background Subtraction

Kinematic Hole Filling

Simulation

Experimental Post Simulation

Important Papers to be references

[1]
[2]
[3]
[4]
[5]
[6]
[7]
[8]
[9]
[10]
[11]