Abstract Submitted
for the APR15 Meeting of
The American Physical Society

Software development for a Ring Imaging Detector BENJAMIN TORISKY, FATIHA BENMOKHTAR, Duquesne University — Jefferson Lab (Jlab) is performing a large-scale upgrade to their Continuous Electron Beam Accelerator Facility (CEBAF) up to 12GeV beam. The Large Acceptance Spectrometer (CLAS12) in Hall B is being upgraded and a new Ring Imaging CHerenkov (RICH) detector is being developed to provide better kaon – pion separation throughout the 3 to 12 GeV range. With this addition, when the electron beam hits the target, the resulting pions, kaons, and other particles will pass through a wall of translucent aerogel tiles and create Cherenkov radiation. This light can then be accurately detected by a large array of Multi-Anode PhotoMultiplier Tubes (MA-PMT). I am presenting my work on the implementation of Java based reconstruction programs for the RICH in the CLAS12 main analysis package.

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Date submitted: 09 Jan 2015   Electronic form version 1.4