

Abstract Submitted
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Reconstruction of showers in the GlueX barrel calorimeter¹

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A crucial part of the GlueX meson spectroscopy program is the analysis of reactions involving neutral mesons (π^0 and η) decaying into photons. The barrel calorimeter, one of two calorimeters built to detect these photons, is a lead/scintillating fiber calorimeter encircling the target and the tracking detectors, equipped with flash ADC and TDC readout. The reconstruction of the energy and position of electromagnetic showers in the calorimeter will be discussed here. The design and optimization of an algorithm to cluster calorimeter hits together is essential to prevent the reconstruction of spurious showers and the merging of two distinct showers. Also important is the development of a procedure for distinguishing clusters caused by electromagnetic showers from those caused by hadronic showers.

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