

Abstract Submitted
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The Advanced Gamma-ray Imaging System (AGIS): Camera Electronics Designs H. TAJIMA, J. BUCKLEY, K. BYRUM, G. DRAKE, A. FALCONE, S. FUNK, J. HOLDER, D. HORAN, H. KRAWCZYNSKI, R. ONG, S. SWORDY, R. WAGNER, D. WILLIAMS, AGIS COLLABORATION — AGIS, a next generation of atmospheric Cherenkov telescope arrays, aims to achieve a sensitivity level of a milliCrab for gamma-ray observations in the energy band of 40 GeV to 100 TeV. Such improvement requires cost reduction of individual components with high reliability in order to equip the order of 100 telescopes necessary to achieve the sensitivity goal. We are exploring several design concepts to reduce the cost of camera electronics while improving their performance. These design concepts include systems based on multi-channel waveform sampling ASIC optimized for AGIS, a system based on IIT (image intensifier tube) for large channel (order of 1 million channels) readout as well as a multiplexed FADC system based on the current VERITAS readout design. Here we present trade-off in the studies of these design concepts.

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