

Abstract Submitted
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Camera Concepts for the Advanced Gamma-Ray Imaging System (AGIS) ADAM NEPOMUK OTTE, scipp, AGIS COLLABORATION — The Advanced Gamma-Ray Imaging System (AGIS) is a concept for the next generation observatory in ground-based very high energy gamma-ray astronomy. Design goals are ten times better sensitivity, higher angular resolution, and a lower energy threshold than existing Cherenkov telescopes. Each telescope is equipped with a camera that detects and records the Cherenkov-light flashes from air showers. The camera is comprised of a pixelated focal plane of blue sensitive and fast (nanosecond) photon detectors that detect the photon signal and convert it into an electrical one. The incorporation of trigger electronics and signal digitization into the camera are under study. Given the size of AGIS, the camera must be reliable, robust, and cost effective. We are investigating several directions that include innovative technologies such as Geiger-mode avalanche-photodiodes as a possible detector and switched capacitor arrays for the digitization.

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