

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

The Advanced Gamma-ray Imaging System (AGIS): Focal Plane Detectors RESHMI MUKHERJEE, Barnard College, Columbia University, K. BYRUM, G. DRAKE, Argonne, A. FALCONE, Penn State, S. FUNK, SLAC, D. HORAN, Argonne, H. TAJIMA, SLAC, B. WAGNER, Argonne, D. WILLIAMS, UC Santa Cruz, AGIS COLLABORATION, FOCAL PLANE INSTRUMENTATION WORKING GROUP COLLABORATION — Report of the Focal Plane Instrumentation Working Group, AGIS collaboration: The Advanced Gamma-ray Imaging System (AGIS) is a concept for the next generation instrument in ground-based very high energy gamma-ray astronomy. It has the goal of achieving significant improvement in sensitivity over current experiments. One of the main requirements for AGIS will be to achieve higher angular resolution than current imaging atmospheric Cherenkov telescopes (IACTs). Simulations show that a substantial improvement in angular resolution may be achieved if the pixel size is reduced to 0.05 deg, below that of current IACTs. Reducing the cost per channel and improving reliability and modularity are other important considerations. Here we present several alternatives being considered for AGIS, including both silicon photomultipliers (SiPMs) and multi-anode photomultipliers (MAPMTs) and summarize results from feasibility testing by various AGIS photodetector group members.

Reshmi Mukherjee
Barnard College, Columbia University

Date submitted: 16 Jan 2008

Electronic form version 1.4