Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Science with the Advanced Gamma Ray Imaging System (AGIS)

PAOLO COPPI, Yale University, AGIS COLLABORATION — We present the scientific drivers for the Advanced Gamma Ray Imaging System (AGIS), a concept for the next-generation ground- based gamma-ray experiment, comprised of an array of ∼100 imaging atmospheric Cherenkov telescopes. Design requirements for AGIS include achieving a sensitivity an order of magnitude better than the current generation of space or ground-based instruments in the energy range of 40 GeV to ∼100 TeV. We present here an overview of the scientific goals of AGIS, including the prospects for understanding VHE phenomena in the vicinity of accreting black holes, particle acceleration in a variety of astrophysical environments, indirect detection of dark matter, study of cosmological background radiation fields, and particle physics beyond the standard model.

Paolo Coppi
Yale University

Date submitted: 12 Jan 2009 Electronic form version 1.4