

Abstract Submitted
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The Advanced Gamma-ray Imaging System (AGIS): Telescope Mechanical Designs V. GUARINO, J. BUCKLEY, K. BYRUM, A. FALCONE, S. FEGAN, J. FINLEY, D. HANNA, D. HORAN, P. KAARET, A. KONOPELKO, H. KRAWCZYNSKI, F. KRENNRICH, R. WAGNER, M. WOODS, V. VASSILIEV, AGIS COLLABORATION — The concept of a future ground-based gamma-ray observatory, AGIS, in the energy range 40 GeV-100 TeV is based on an array of \sim 100 imaging atmospheric Cherenkov telescopes (IACTs). The anticipated improvements of AGIS sensitivity, angular resolution and reliability of operation impose demanding technological and cost requirements on the design of IACTs. The relatively inexpensive Davies-Cotton telescope design has been used in ground-based gamma-ray astronomy for almost fifty years and is an excellent option. We are also exploring alternative designs and in this submission we focus on the recent mechanical design of a two-mirror telescope with a Schwarzschild-Couder (SC) optical system. The mechanical structure provides support points for mirrors and camera. The design was driven by the requirement of minimizing the deflections of the mirror support structures. The structure is also designed to be able to slew in elevation and azimuth at 10 degrees/sec.

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