

Abstract Submitted
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AGN Science with AGIS PAOLO COPPI, Yale University, AGIS COLLABORATION — AGIS, a proposed future gamma-ray telescope consisting of a square km array of 50 atmospheric Cherenkov telescopes, will provide a powerful new view of the high energy universe. The combination of its increased sensitivity (a factor 10 over current observatories), increased survey capabilities, and a low energy threshold (< 30 GeV) that allows observations at energies not subject to absorption on extragalactic background light will result in a dramatic increase in the number of AGN accessible at high energies. The overall number of “TeV blazar” AGN, those detected by current ground-based observatories, should increase by a factor 30 or more with a corresponding increase in the number of these that can be monitored at high statistical significance to test emission models rigorously. More excitingly, AGIS may also begin to pick up entirely new classes of AGN such as radio galaxies with X-ray emitting hotspots at large distances from the central engine, providing further insight into the outflows from AGN. The low AGIS threshold energy will also allow significant source overlap with objects detected by the recently launched Fermi gamma-ray space observatory at lower, GeV energies. AGIS will significantly improve on the localization and variability monitoring of the Fermi sources it sees.

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