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The Science and Design of the AGIS Observatory MARTIN SCHROEDTER, Iowa State University, AGIS COLLABORATION — The AGIS observatory is a next-generation array of imaging atmospheric Cherenkov telescopes (IACTs) for gamma-ray astronomy between 100 GeV and 100 TeV. The AGIS observatory is the next logical step in high energy gamma-ray astronomy, offering improved angular resolution and sensitivity compared to FERMI, and overlapping the high energy end of FERMI's sensitivity band. The baseline AGIS observatory will employ an array of 36 Schwarzschild-Couder IACTs in combination with a highly pixelated (0.05° diameter) camera. The instrument is designed to provide millicrab sensitivity over a wide (8° diameter) field of view, allowing both deep studies of faint point sources as well as efficient mapping of the Galactic plane and extended sources. I will describe science drivers behind the AGIS observatory and the design and status of the project.

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