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Sensitivity Study of the Multi-Telescope Array for Ground-Based Gamma-Ray Astronomy DONGQING HUANG, ALEXANDER KONOPELKO, Pittsburg State University — Recently, ground-based very high-energy (VHE) gamma-ray astronomy achieved a remarkable advancement in the development of the observational technique for the registration and study of gamma-ray emission above 100 GeV. Construction of multi-telescope arrays of currently used 12 m class telescopes combined with a few telescopes of much larger reflector size (20-25 m) can drastically improve the sensitivity of ground-based detectors to gamma rays of energy from 10 GeV to 100 GeV. Based on Monte Carlo simulations we have studied the response of such an array of imaging atmospheric Cherenkov telescopes. The sensitivity estimates will be presented at the meeting.

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