

Abstract Submitted  
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**All-Sky Imaging With Fermi's GBM in the Hard X-ray Regime<sup>1</sup>**

J. RODI, G.L. CASE, M.L. CHERRY, Dept. of Physics & Astronomy, Louisiana State University, C.A. WILSON-HODGE, NASA Marshall Space Flight Center, FOR THE GBM COLLABORATION — The 12 sodium iodide (NaI) detectors that provide the hard x-ray (8-1000 keV) coverage for the Fermi satellite mission's Gamma-Ray Burst Monitor (GBM) can utilize the Earth Occultation Technique to measure the flux of x-ray and gamma-ray sources. When a source moves behind (or out from behind) the Earth, a step-like feature occurs in the detector count rate. The  $\sim 53$  day orbital precession period allows for complete sky coverage, though the coverage is not uniform. The standard analysis relies on a catalog of known sources for obtaining occultation times and flux measurements. To search for unknown sources, imaging techniques must be used such as the Differential Filter Technique being developed at LSU. A grid with  $0.25^\circ$  spacing is overlaid on the sky, and the data near a given grid point's occultation times are folded over multiple days. The folded data are then passed through the filter, amplifying an occultation step while damping background and providing an estimate of the intensity from that grid point. Results using GBM will be presented.

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