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Future Prospects for Space-Based Gamma Ray Astronomy MARK MCCONNELL, University of New Hampshire — The gamma-ray sky offers a unique view into broad range of astrophysical phenomena, from nearby solar flares, to galactic pulsars, to gamma-ray bursts at the furthest reaches of the Universe. The Fermi mission has dramatically demonstrated the broad range of topics that can be addressed by gamma-ray observations. The full range of gamma-ray energies is quite broad, covering the electromagnetic spectrum at energies above about 100 keV. The energy range below several hundred GeV is the domain of space-based gamma-ray observatories, a range that is not completely covered by the Fermi LAT instrument. The gamma ray community has recently embarked on an effort to define the next steps for space-based gamma ray astronomy. These discussions are being facilitated through the Gamma-ray Science Interest Group (GammaSIG), which exists to provide community input to NASA in regards to current and future needs of the gamma-ray astrophysics community. The GammaSIG, as a part of the Physics of the Cosmos Program Analysis Group, provides a forum open to all members of the gamma-ray community. The GammaSIG is currently working to bring the community together with a common vision that will be expressed in the form of a community roadmap. This talk will summarize some of the latest results from active gamma ray observatories, including both Fermi and INTEGRAL, and will summarize the status of the community roadmap effort.

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