

The Extragalactic Gamma-Ray Background: Results from CGRO

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The first dedicated all-sky survey in gamma-rays by the Compton Observatory has provided new measurements on the intensity and spectrum of the diffuse extragalactic gamma-rays. Significantly revised estimates of the MeV emission from the COMPTEL experiment, together with the evidence for a smooth power-law extending from 30 MeV to almost 100 GeV, has provided the best broadband spectral coverage to address the origin of the gamma-ray background. Possible contributions from truly diffuse processes and from unresolved point sources such as supernovae, various types of active galactic nuclei, etc will be reviewed. The next major improvement in resolving the origin of the gamma-ray background can be expected only from detectors with significantly enhanced spectral capabilities.