

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Resolving the Extragalactic Gamma-ray Background MARCO AJELLO, Clemson University, MATTIA DI MAURO, SLAC National Laboratory, FERMI-LAT COLLABORATION — Models of the extragalactic gamma-ray background (EGB) show that its intensity can be ascribed to the integrated emission of source populations, like blazars, already detected by the Fermi Large Area Telescope (LAT). Taking advantage of the sensitivity increase delivered by Pass 8, the newest event-level analysis, we tested this hypothesis employing a photon fluctuation analysis above 50 GeV. For the first time we were able to resolve nearly the entire EGB and show that blazars contribute at least 85% of the EGB intensity. We will discuss how this analysis can be extended to lower energies and present our current understanding of the origin of the EGB.

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Date submitted: 29 Sep 2016

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