

# Hunting for Point Sources in the Extragalactic Gamma-Ray Sky

*Tuesday, 13 September 2016 17:45 (15 minutes)*

In this talk, I will present an analysis of the extragalactic gamma-ray background (EGB) using data from the *Fermi* Large Area Telescope. The method takes advantage of photon-count statistics to determine the properties of resolved and unresolved gamma-ray sources that contribute to the EGB. I will present the source-count functions, as a function of energy, from 1.89 GeV to 2 TeV, as well as the energy spectra of the different contributing source components, and will discuss how the results are affected by a variety of systematic uncertainties. These results allow us to determine the fraction of point sources in the EGB, which has potential implications for the interpretation of the ultra-high-energy neutrinos observed by IceCube. I will also comment on the consequences of these results for future TeV observatories such as the Cherenkov Telescope Array.

## Summary

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