

EBL models and cosmology with gamma rays

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Gamma-rays from cosmological gamma-ray sources, primarily blazars but also gamma-ray bursts, interact with the extragalactic background light (EBL) photons, and are absorbed. This allows one to use gamma-ray absorption to constrain the EBL, which depends strongly on a number of quantities that are interesting from an astrophysical and cosmological point of view. This includes the universe's history of star formation and heavy element production, and its expansion rate. I describe how combining results of gamma-ray absorption measurements with the Fermi-LAT with galaxy survey results can constrain these quantities.

Author: FINKE, Justin

Presenter: FINKE, Justin

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