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The Density of Blazars above 100 MeV and the Origin of the Extragalactic Gamma-ray Background LEA MARCOTULLI, MARCO AJELLO, Clemson University, MATTIA DI MAURO, INFN, Torino — The mystery of the extragalactic gamma-ray background (EGB) has been investigated since its first detection. To unveil its origin and composition, it is necessary to resolve the different gamma-ray emitting populations. Relying on 8 years of Fermi-Large Area Telescope data, we obtained the most sensitive source count distribution of blazars >100 MeV to date. This allowed us to derive the contribution of blazars to the EGB, highlighting that this population cannot reproduce the entire EGB and that, indeed, another source class is required to explain the residual emission. In this talk, I will present the latest results of our analysis in light of blazars' evolutionary models and discuss alternatives for the origin of the missing EGB component.

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