

Elliott D. Bloom, Professor Emeritus

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Education: Ph.D., Particle Physics, California Institute of Technology, 1967. B.A., Physics, Pomona College, 1962

Fellowships and Awards: Fellow of American Physical Society (1985). Senior Scientist Award, Alexander von Humboldt Foundation (1982).

Professional Experience: Professor Emeritus, KIPAC (Kavli Institute for Particle Astrophysics and Cosmology) -SLAC, Stanford University (2016- present). Full Professor, KIPAC, Stanford University (2004 – 2015). Full Professor, SLAC, Stanford University (1980 - 2015).

Professional Activities: Chair, SLAC GLAST Physics Department (2005-2007), SLAC Group K Leader, Particle Astrophysics (1992 - 2005). Integrate and Test System Manager for the GLAST LAT project (2001- 2005). Co-Investigator and Member of the Fermi-LAT Collaboration (1992-present). Member of Senior Scientist Advisory Committee, Fermi-LAT Collaboration (1995-present). DOE PI on Gamma Ray Large Area Space Telescope (GLAST) R&D Phase (1993 -1999). Member of the NASA GLAST Mission Science Working Group, GLAST (1999 - 2015). Co-Investigator and SLAC Spokesman, Unconventional Stellar Aspect (USA) X-Ray Experiment (1991- 2005). The American Astronomical Society since 1992. The American Physical Society since 1967.

Research Interests: The search for indirect detection signatures of dark matter and large extra dimensions using the Fermi LAT Space Telescope (1998-present). The study of strong relativistic gravity, large extra dimensions, and dark matter using x-ray and gamma-ray space satellite experiments (1990 – present).

Selected Publications 2015-16 (over 350 publications total since 1965):

1. Ackermann, M. et al. 2016, “*Fermi-LAT Observations of the LIGO event GW150914*”, ApJL, 823, L2
2. Acero, F. et al. 2016, “*The 1st Fermi-LAT Supernova Remnant Catalog*”, ApJS, 224
3. Charles, E. et al. 2016, “*Sensitivity projections for dark matter searches with the Fermi large area telescope*”, Phys. Rep. 636, 1–46
4. Ackermann, M. et al. 2016, “*Search for gamma-ray emission from the Coma Cluster with six years of Fermi-LAT data*”, ApJ, 819, 149
5. Ajello, M. et al. 2016, “*Search for spectral irregularities due to photon-axion-like particle oscillations with the Fermi Large Area Telescope*”, Phys. Rev. Lett. 116, 161101
6. Ackermann, M. et al. 2016, “*Resolving the Extragalactic gamma-ray Background above 50 GeV with Fermi-LAT*”, Phys. Rev. Lett. 116, 151105
7. Ajello, M. et al. 2016, “*Fermi-LAT Observations of High-Energy Gamma-Ray Emission Toward the Galactic Center*”, ApJ, 819, 44
8. Acero, F. et al. 2016, “*Development of the Model of Galactic Interstellar Emission for Standard Point-Source Analysis of Fermi Large Area Telescope Data*”, ApJS, 223, 26
9. Ahnen, M.L. et al. 2016, “*Limits to dark matter annihilation cross-section from a combined analysis of MAGIC and Fermi-LAT observations of dwarf satellite galaxies*”, JCAP, 2016, 39
10. Ackermann, M. et al. 2016, “*2FHL: The Second Catalog of Hard Fermi-LAT Sources*”, ApJS, 222, 5
11. Ackermann, M. et al. 2015, “*A deep view of the Large Magellanic Cloud with 6 years of Fermi/LAT observations*”, A&A, 586, A71
12. Ackermann, M. et al. 2015, “*Searching for dark matter annihilation from Milky Way dwarf spheroidal galaxies with six years of Fermi-LAT data*”, Phys. Rev. Lett., 115, 231301
13. Ackermann, M. et al. 2015, “*Search for extended gamma-ray emission from the Virgo galaxy cluster with Fermi-LAT*”, ApJ, 812, 159
14. The Fermi LAT collaboration 2015, “*Limits on dark matter annihilation signals from the Fermi LAT 4-year measurement of the isotropic gamma-ray background*”, JCAP, 9, 8
15. Drlica-Wagner, A. et al. 2015, “*Search for Gamma-Ray Emission from DES Dwarf Spheroidal Galaxy Candidates with Fermi-LAT Data*”, ApJL, 809, 4
16. Acero, F. et al. 2015, “*Fermi Large Area Telescope Third Source Catalog*”, ApJS, 218, 23
17. Ackermann, M. et al. 2015, “*Updated Search for Spectral Lines from Galactic Dark Matter Interactions with Pass 8 Data from the Fermi Large Area Telescope*”, Phys. Rev. D, D91, 122002
18. Ackermann, M. et al. 2015, “*The spectrum of isotropic diffuse gamma-ray emission between 100 MeV and 820 GeV*”, ApJ, 799, 86

Conference Presentations:

1. Invited Talk- “*The Deep Inelastic Scattering Experiment BC42 at SLAC*”, Cérémonie en l'honneur de Michel Della Negra, lauréat du Prix Lagarrigue 2014, Orsay France, December 14, 2015.

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2. Invited talk- “A Review of Fermi-LAT Dark Matter Searches”, UCLA Dark Matter Meeting, UCLA, February 17-19, 2016
3. Presented talk- “Observations and Models of Gamma-ray Emission Toward the Galactic Center the case of the *Fermi* GeV Excess”, TeV Particle Astrophysics, CERN Geneva, September 12-16, 2016