

# Fermi LAT International Finance Committee Meeting

## LAT Collaboration status

Peter F. Michelson  
Stanford University

telecon  
April 23, 2012



# 2<sup>nd</sup> Fermi LAT Catalog

1,873 sources

2<sup>nd</sup> LAT catalog published in ApJS

90 citations to date

THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, 199:31 (46pp), 2012 April  
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doi:10.1088/0067-0049/199/2/31

*FERMI* LARGE AREA TELESCOPE SECOND SOURCE CATALOG\*

lead author: Patrick Nolan (1952 – 2011)

<http://aas.org/node/4567>

Credit: Fermi Large Area Telescope Collaboration

# LAT Collaboration publications

18 April 2012

## Category I and II papers in refereed journals

Journal	Published	In press	Total
Astronomical Journal	1+0=1	-	1
Astronomy and Astrophysics	6+9=15	0+1=1	16
Astroparticle Physics	2+2=4	-	4
Astrophysical Journal	62+30=92	1+0=1	93
Astrophysical Journal Letters	20+10=30	-	30
Astrophysical Journal Supplement	4+1=5	-	5
Journal of Cosmology and Astroparticle Physics	3+2=5	0+1=1	6
Monthly Notices of the RAS	0+9=9	0+1=1	10
Nature	2+1=3	-	3
Physical Review D	4+0=4	1+0=1	5
Physical Review Letters	6+0=6	-	6
Science	13+0=13	-	13
<b>Total</b>	<b>123+64=187</b>	<b>2+3=5</b>	<b>192</b>

Number of Astronomer's Telegrams = 191 (~1 / week)

Number of GCN notices = 40



**+MW follow ups**

# Fermi LAT CAT I papers and citations

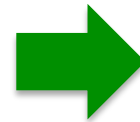
	# CAT I papers	#citations to date
2008	1	67
2009	35	3,680
2010	54	3,010
2011	22	401
2012	10	123
<b>Total</b>	<b>122</b>	<b>7,281</b>

# Most cited LAT team papers

- “The Large Area Telescope on the Fermi Gamma-Ray Space Telescope Mission” ApJ (06/2009) 643
- **“Measurement of the Cosmic Ray  $e^+e^-$  Spectrum from 20 GeV to 1 TeV with the Fermi Large Area Telescope” PRL (05/2009) 567**
- “Fermi Large Area Telescope First Source Catalog” ApJS (06/2010) 357
- “Fermi/Large Area Telescope Bright Gamma-Ray Source List” ApJ (07/2009) 282
- “Bright Active Galactic Nuclei Source List from the First Three Months of the Fermi Large Area Telescope All-Sky Survey” ApJ (07/2009) 259
- “Fermi Observations of High-Energy Gamma-Ray Emission from GRB 080916C” ApJ (03/2009) 248
- “The First Fermi Large Area Telescope Catalog of Gamma-ray Pulsars” ApJ (04/2010) 220
- “Spectrum of the Isotropic Diffuse Gamma-Ray Emission Derived from First-Year Fermi Large Area Telescope Data” PRL (11/2010) 184
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- **“Constraining Dark Matter Models from a Combined Analysis of Milky Way Satellites with the Fermi Large Area Telescope”, PRL (12/2011) 60**
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# LAT Science Group Coordination

Group	Leads (Nov. 2011)	Leads (Apr. 2012)
Calibration & Analysis	Luca Baldini Leon Rochester	<b>Johan Bregeon</b> Leon Rochester
Dark Matter & New Physics	<b>Jennifer Siegal-Gaskins</b> Luca Latronico	Jennifer Siegal-Gaskins <b>Nicola Mazziota</b>
Diffuse	<b>Luigi Tibaldo</b> Gulli Johannessen	Luigi Tibaldo Gulli Johannessen
Catalog	Elizabeth Ferrara Isabelle Grenier	Elizabeth Ferrara Isabelle Grenier
Solar System	<b>Nicola Omodei</b> Nicola Giglietto	Nicola Omodei Nicola Giglietto
AGN	<b>Marco Ajello</b> Justin Finke	Marco Ajello Justin Finke
Galactic Sources	<b>Paul Ray</b> Francesco Giordano	Paul Ray <b>Liz Hays</b>
GRB (LAT members)	Vlasios Vasileiou Judith Racusin	<b>Giacomo Vianello</b> Judith Racusin



Huge amount of organizational work is done by group leaders  
We are lucky to have so many skilled people willing to step up

# Summary

- Fermi LAT Collaboration is very busy and very productive
  - good coverage in all areas due to multitasking by many collaboration members
  - off to excellent start in 2012; several important papers in the pipeline; Pass 8 R&D work going well (more later)
- Science reach of LAT remains high, particularly discovery space at high-energy (see Eric Charles AC presentation)