

# Jonathan Granot \_\_\_\_\_ Curriculum Vitae

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## EDUCATION \_\_\_\_\_

- 2002      **Ph.D.** in Physics, Hebrew University of Jerusalem
- 1999      **M.Sc.** in Physics, Hebrew University of Jerusalem
- 1997      **B.Sc.** in Physics and Mathematics, Hebrew University of Jerusalem

## EMPLOYMENT \_\_\_\_\_

- 2016 –      Full Professor, Open University of Israel
- 2012 – 2016      Associate Professor, Open University of Israel
- 2008 – 2012      Reader in Astrophysics, University of Hertfordshire
- 2007 – 2008      Principal Lecturer, University of Hertfordshire
- 2004 – 2007      Research Associate, KIPAC, Stanford
- 2001 – 2004      Member, Institute for Advanced Study (IAS), Princeton
- 1998 – 2001      Instructor at a physics lab, during Ph.D. studies (Hebrew Univ.)
- 1996 – 1998      Teaching Assistant, during M.Sc. studies at the Hebrew University

## VISITING POSITIONS \_\_\_\_\_

- Long term:    2011 – 2012      Erskine Visiting Associate Professor, Hebrew University
- Short term:    2008, 09, 14      KIPAC, Stanford & University of California, Santa Cruz
- 2006              Kavli Institute for Theoretical Physics, Santa Barbara
- 2000              Kersten Visiting Fellow, University of Chicago

## HONORS, PRIZES, AWARDS \_\_\_\_\_

- 2011      HEAD AAS Rossi Prize to B. Atwood, P. Michelson & the Fermi LAT team
- 2007      Royal Society Wolfson Research Merit Award (for 5 years;  
                  significant salary enhancement + some research funds)
- 2007      HEAD AAS Rossi Prize to Neil Gehrels and the Swift team
- 2003      Keck Fellowship (Institute for Advanced Study, Princeton)
- 2000      A 3 year Scholarship from the Horowitz foundation
- 2000      The Giulio Racah prize for academic excellence
- 1999      M.Sc. *cum laude* in Physics (Hebrew University)
- 1997      B.Sc. *cum laude* in Physics and Mathematics (Hebrew Univ.)
- 1995, 6    Dean's list of the Faculty of Mathematics and Natural Sciences

## RESEARCH INTERESTS \_\_\_\_\_

- High energy astrophysics; gamma-ray bursts; magnetars; gravitational lensing; high energy neutrinos; pulsar wind nebulae; relativistic fluid dynamics and MHD; structure of blast waves; dynamics of relativistic jets; tests of Lorentz invariance violation.

## SELECT ACADEMIC ACHIEVEMENTS \_\_\_\_\_

- ★ 144 papers published in refereed journals
- ★ 41 first (or main) author papers; 5 review articles; 2 book chapters
- ★ 47 invited talks at conferences/meetings (and >40 colloquia/seminars)
- ★ Over 9600 citations (H-index of 50; SAO/NASA Astrophysics Data System)

## PROFESSIONAL ACTIVITY \_\_\_\_\_

- Peer Review for: Science Magazine; Nature Astronomy; Nature Physics; Phys. Rev. (Letters; E); ApJ (Letters; main J.); MNRAS (Letters; main J.); Astron. & Astrophys.; Rep. Prog. Phys.; JHEAP; Adv. in Space Res.; Astroparticle Physics; PASJ; JCAP; Rev. Mex. A&A; ASTRA; IJMPCS; NJP
- Review of proposals for: NASA; European Science Foundation (ESF); US-Israel Binational Science Foundation (BSF); Israel Science Foundation (ISF); National Science Foundation (NSF); STFC; SNS; Aristeia; WHT; Gemini Observatory
- Co-I in VLBA, VLA, VLT, EVN, WSRT, Chandra, Spitzer, and Hubble Space Telescope proposals, and PI of a VLBA proposal
- Chaired sessions or was a member of the SOC in many international conferences
- Member of the **Swift** Science Theory Team 2006–
- Affiliated Scientist with the **Fermi Large Area Telescope** collaboration 2007–
- Member of **Cherenkov Telescope Array** collaboration (GRB task co-leader) 2008–
- Israeli delegate, COST MP1304 “Exploring fundamental physics with compact stars”

## SELECT PERSONAL RESEARCH FUNDING \_\_\_\_\_

- 2007–2011: Marie Curie International Reintegration Grant (€ 100,000)
- 2007–2012: Royal Society Wolfson Research Merit Award (£ 18,000)
- 2014–2018: Israel Science Foundation (with Yuri Lyubarsky;  $\frac{1}{2} \times$  NIS 1,030,000)

## TEACHING AND MENTORING EXPERIENCE \_\_\_\_\_

- Developing and updating courses in Physics at the Open University of Israel (2012–)
- Taught courses in astrophysics, physics, mathematics, programming (2007 – 2011)
- Mentoring & guiding PhD students and postdocs (at Princeton, Stanford, Hebrew U.); supervising postdocs (at U. of Hertfordshire, Open U. of Israel – currently 2)
- Gave tutorial talks at summer schools and review talks at conferences
- Organized a GRB Journal Club at KIPAC, Stanford (2006 – 2007)
- Worked as a teaching assistant (1996 – 1998) and physics lab instructor (1998 – 2001)

## RECENT INVITED TALKS

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1. “Lessons from the First Magnetar Wind Nebula”, invited talk at the High Energy Astrophysics Workshop, February 28, 2017, Jerusalem, Israel
2. “Magnetar Wind Nebula around Swift J1834.9-0854 evidence for energy injection well above the spin-down power”, “Emission and Detectability of Magnetar Wind Nebulae”, “Evolution of Magnetars”, invited talks at the 2<sup>nd</sup> Capitol Chats, on “Magnetars, what are they? ”, July 13–15, 2016, GWU, Washington DC, USA
3. “Bounds on Lorentz Invariance Violation from Fermi GRBs”, review talk at the 17<sup>th</sup> Lomonosov Conference on Elementary Particle Physics, August 22, 2015, Moscow, Russia
4. “Jet in Star”, “Magnetic acceleration of GRB jets”, “GRB130427A: evidence for genuine violation of  $E_{\text{syn,max}}$ ”, at *The 1<sup>st</sup> Capitol Chat, on “GRBs and their prompt emission radiation mechanism”*, June 8–10, 2015, GWU, Washington DC, USA
5. “Gamma-Ray Bursts in the Fermi Era”, plenary review talk at the 5<sup>th</sup> Fermi Symposium, October 23, 2014, Nagoya, Japan
6. “Experimental Bounds on Quantum Gravity from Fermi GRB Observations”, review talk at “Experimental search for quantum gravity”, September 3, 2014, SISSA, Trieste, Italy
7. “Jet acceleration, collimation and Stability”, at *The Strongest Magnetic Fields in the Universe*, Feb. 6, 2014, International Space Science Institute, Bern, Switzerland
8. “GRB Jet Dynamics”, at *Future Directions of Relativistic Jets*, 31/8/2013, Skokloster, Sweden
9. “Searches for Quantum Gravity Signals using Gamma-Ray Bursts” at LOOPS 13, July 23, 2013, Perimeter Institute, Waterloo, Canada
10. “GRB Jets: a Theoretical Review”, at *Locating Astrophysical Transients*, May 15, 2013, Lorentz Center, Leiden, The Netherlands
11. “GRB Prompt Emission Mechanism: Implications of Fermi Observations”, at the 13<sup>th</sup> HEAD meeting, April 10, 2013, Monterey, California, USA
12. “Constraining Quantum Gravity with GRBs”, at *Experimental Search for Quantum Gravity: the hard facts*, October 24, 2012, Perimeter Institute, Waterloo, Canada
13. “GRB Jet Dynamics: Analytic Models and Numerical Simulations”, at the *Fall 2012 Gamma-Ray Burst Symposium*, October 9, 2012, Marbella, Malaga, Spain
14. “Magnetic Field Decay in Magnetars and implications for evolutionary links”, at the 39<sup>th</sup> COSPAR Scientific Assembly, July 19, 2012, Mysore, India
15. “GRB Jet Dynamics and Afterglow Lightcurves”, at the 13<sup>th</sup> Marcel Grossmann meeting (MG13), July 6, 2012, Stockholm, Sweden
16. “Magnetized Relativistic Outflows: effects of strong time dependence”, at the 13<sup>th</sup> Marcel Grossmann meeting (MG13), July 5, 2012, Stockholm, Sweden
17. “GRBs: Current Status & Future Prospects”, reiew talk at the International Conference on Astrophysics & Cosmology (ICAC2012), March 20, 2012, Kathmandu, Nepal

## LIST OF PUBLICATIONS

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Articles **published in refereed journals** are marked by ‘\*’

Articles **submitted** to refereed journals but not yet published are marked by ‘o’

### Magnetized Relativistic Jets: Dynamics, Dissipation, Radiation

1. \* “GRBs from Magnetic Reconnection: Variability and Robustness of Lightcurves”, **Granot, J.** 2016, **ApJ Lett.**, 816, L20 (6 pages)
2. \* “Properties of GRB Lightcurves from Magnetic Reconnection”, Beniamini, P., & **Granot, J.** 2016, **MNRAS**, **459**, 3635–3658
3. \* “GRBs as Sources of Strong Magnetic Fields”, **Granot, J.**, Piran, T., Bromberg, O., Racusin, J. L., & Daigne, F. 2015, invited topical review (book chapter) in “The Strongest Magnetic Fields in the Universe” (Space Science Series, ISSI, Springer), Space Science Reviews
4. \* “The effects of sub-shells in highly magnetized relativistic flows”, **Granot, J.** 2012b, **MNRAS**, **421**, 2467–2477
5. \* “Interaction of a highly magnetized impulsive relativistic flow with an external medium”, **Granot, J.** 2012a, **MNRAS**, **421**, 2442–2466
6. \* “Impulsive Acceleration of Strongly Magnetized Relativistic Flows”, **Granot, J.**, Komissarov, S. S., & Spitkovsky, A. 2011, **MNRAS**, **411**, 1323–1353
7. \* “Opacity Build-up in Impulsive Relativistic Sources”, **Granot, J.**, Cohen-Tanugi, J., & do Couto e Silva, E. 2008, **ApJ**, **677**, 92–126

### Fundamental Physics: Astrophysical Tests of Lorentz Invariance

8. \* “A Planck-scale limit on spacetime fuzziness and stochastic Lorentz invariance violation”, Vasileiou, V., **Granot, J.**, Piran, T., & Amelino-Camelia, G. 2015, **Nature Physics**, 11, 344–346
9. \* “Lorentz Invariance Violation: latest Fermi results and GRB/AGN complementarity”, Bolmont, J., *et al.* 2014 (**J. Granot** author 6 of 9), **NIMPA**, **742**, 165
10. \* “Constraints on Lorentz Invariance Violation from Fermi/LAT Observations of GRBs”, Vasileiou, V. *et al.* 2013 (**J. Granot** author 6 out of 9), **PRD**, **87**, 122001
11. \* “A limit on the variation of speed of light arising from quantum gravity effects”, the Fermi LAT and Fermi GBM Collaborations, 2009, **Nature**, 462, 331–334 (**J. Granot** is a corresponding author; he initiated, organized and supervised this work and was the main driving force behind it; he would be first author if not for the Fermi LAT collaboration’s strict alphabetical author list rule).

## Highly Magnetized Neutron Stars: Phenomenology, Theory

12. \* “Burst and Outburst Characteristics of Magnetar 4U 0142+61”, Göğüş, et al. 2016 (**J. Granot** author #7 out of 13) ApJ, **835**, 68
13. o “The High Frequency Radio Emission of the Galactic Center Magnetar SGR J1745 – 29 during a Transitional Period”, Gelfand, J., et al. (**J. Granot** author #4 out of 9), submitted to ApJ
14. \* “Learning About the Magnetar Swift J1834.9 – 0846 from its Wind Nebula”, **Granot, J.**, Gill, R., Younes, G., Gelfand, J., Harding, A., Kouveliotou, C., & Baring, M. G. 2016, MNRAS, **464**, 4895 – 4926
15. \* “Detection of Very Low Frequency Quasi-Periodic Oscillations in the 2015 Outburst of V404 Cygni”, Huppenkothen, D., *et al.* 2017 (**J. Granot** author #11 out of 15), ApJ, **834**, 90
16. \* “The wind nebula around magnetar Swift J1834.9 – 0846”, Younes, G., *et al.* 2016 (**J. Granot** author #5 out of 15) , ApJ, 824, 138
17. \* “Five Year Fermi/GBM Magnetar Burst Catalog”, Collazzi, A. C., *et al.* 2015 (**J. Granot** author #8 out of 21), ApJS, **218**, 11
18. \* “Quasi-Periodic Oscillations in Short Recurring Bursts of SGR J1550–5418”, Huppenkothen, D., *et al.* 2014 (**J. Granot** author #10 out of 14), ApJ, **787**, 128
19. \* “Time Resolved Spectroscopy of SGR J1550–5418 for the Fermi/GBM Bursts”, Younes, G., *et al.* 2014 (**J. Granot** author #5 out of 19), ApJ, **785**, 52
20. \* “Quasi-Periodic Oscillations and Broadband Variability in Short Magnetar Bursts”, Huppenkothen, D., *et al.* 2013 (**J. Granot** author #8 out of 10), ApJ, **768**, 87
21. \* “Detection of spectral evolution in the bursts emitted during the 2008–2009 active episode of SGR J1550-5418”, von Kienlin, A., et al. 2012 (**J. Granot** author #4 out of 19), ApJ, **755**, 150
22. \* “Broadband Spectroscopy of SGR J1550-5418 Bursts”, Lin, L., *et al.* 2012 (**J. Granot** author #4 out of 12), ApJ, **756**, 54
23. \* “Magnetic Field Decay in Neutron Stars: from SGRs to Weak Field Magnetars”, Dall’Osso, S., **Granot, J.**, & Piran, T. 2012, MNRAS, **422**, 2878 – 2903
24. \* “SGR J1550–5418 Bursts during its Most Prolific Activity observed with Fermi/GBM”, van der Horst, A. J., *et al.* 2012 (**J. Granot** author #8 out of 37), ApJ, **749**, 122
25. \* “Burst and Persistent Emission Properties during the Recent Active Episode of the Anomalous X-ray Pulsar 1E 1841-045”, Lin, L., *et al.* 2011 (**J. Granot** author #10 out of 18), **ApJ Lett.**, 740, L16
26. \* “Fermi/GBM Observations of SGRJ0501+4516 Bursts”, Lin, L., *et al.* 2011 (**J. Granot** author #10 out of 30), ApJ, **739**, 87

27. \* “Discovery of a New Soft Gamma Repeater: SGR J0418+5729”, van der Horst, A. J., *et al.* 2010 (**J. Granot** author #8 out of 35) **ApJ Lett.**, 711, L1–L6
28. \* “Magnetar Twists: Fermi/Gamma-ray Burst Monitor (GBM) detection of SGR1550-5418”, Kaneko, Y., *et al.* 2010 (**J. Granot** author #4 out of 14) **ApJ**, **710**, 1335
29. \* “An infrared ring around the magnetar SGR 1900+14”, Wachter, S., *et al.* 2008 (**J. Granot** author #5 out of 7), **Nature**, 453, 626–628
30. \* “The Giant Flare from SGR 1806–20 and its Radio Afterglow”, Taylor, G. B., & **Granot, J.** 2006, **invited Brief Review, Mod. Phys. Lett. A**, 21, 2171–2188
31. \* “Diagnosing the Outflow from the SGR 1806-20 Giant Flare with Radio Observations”, **Granot, J.**, and 8 other co-authors, 2006, **ApJ**, **638**, 391–396
32. \* “The Growth, Polarization, and Motion of the Radio Afterglow of the SGR 1806-20 Giant Flare”, Taylor, G. B., *et al.* 2005 (**J. Granot** #4 of 11), **ApJ**, **634**, L89
33. \* “A Re-brightening of the Radio Nebula associated with the 2004 Dec. 27 Giant Flare from SGR 1806-20”, Gelfand, J. D., Lyubarsky, Y. E., Eichler, D., Gaensler, B. M., Taylor, G. B., **Granot, J.**, & 4 co-authors, 2005, **ApJ Lett.**, 634, L93–L96
34. \* “A giant  $\gamma$ -ray flare from the magnetar SGR 1806-20”, Palmer, D. M., *et al.* 2005 (**J. Granot** author #10 out of 28), **Nature**, 434, 1107–1109
35. \* “An expanding radio nebula produced by a giant flare from magnetar SGR 1806–20”, Gaensler, B. M., *et al.* 2005, (**J. Granot** author #7 out of 19), **Nature**, 434, 1104

## Gravitational Microlensing

36. \* “The Mean Number of Extra Microimage Pairs for Macrolensed Quasars” **Granot, J.**, Schechter, P. L., & Wambsganss, J. 2003, **ApJ**, **583**, 575–583
37. \* “Microlensing and the Surface Brightness Profile of the Afterglow Image of GRB 000301C”, Gaudi, B. S., **Granot, J.**, & Loeb, A. 2001, **ApJ**, **561**, 178–182
38. \* “Chromatic Signatures in the Microlensing of GRB Afterglows” **Granot, J.**, & Loeb, A. 2001, **ApJ Lett.**, 551, L63–L66

## Structure and Stability of Relativistic Shocks

39. \* “Stability of Radiative Relativistic Shocks to Global Oscillations”, Königl, A., & **Granot, J.** 2008, **International Journal of Modern Physics D**, **17**, 1777–1786
40. \* “Radiative Hydromagnetic Shocks in Relativistic Outflow Sources”, **Granot, J.**, & Königl, A. 2001, **ApJ**, **560**, 145–159

## Temporal Variability in GRB afterglows

41. \* “Smooth Light Curves from a Bumpy Ride: Relativistic Blast Wave Encounters a Density Jump”, Nakar, E., & **Granot, J.** 2007, MNRAS, **380**, 1744–1760
42. \* “Refreshed Shocks from a  $\gamma$ -ray burst”, **Granot, J.**, Nakar, E., & Piran, T. 2003, **Nature**, 426, 138–139
43. \* “Variability in GRB afterglows and GRB 021004”  
Nakar, E., Piran, T., & **Granot, J.** 2003, *New Astronomy*, **8**, 495–505

## High Energy Neutrinos

44. \* “Neutrinos from Pulsar Wind Bubbles as Precursors to Gamma-Ray Bursts”, **Granot, J.**, & Guetta, D. 2003, **Phys. Rev. Lett.**, 90, 191102
45. \* “Neutrinos of Energy  $\sim 10^{16}$  eV from Gamma-Ray Bursts in Pulsar Wind Bubbles”, Guetta, D., & **Granot, J.** 2003, **Phys. Rev. Lett.**, 90, 201103

## X-ray Flashes, GRBs Viewed Off-Axis & Orphan Afterglows

46. “Jets and Gamma-Ray Burst Unification Schemes”, **Granot, J.**, & Ramirez-Ruiz, E. 2013, book chapter, in “Gamma-ray Bursts” (**Cambridge University Press**)
47. \* “A late time afterglow rebrightening in GRB081028”, Margutti, R., Genet, F., **Granot, J.**, *et al.* 2010, MNRAS, **402**, 46–64
48. \* “Rise and fall of the X-ray flash 080330: an off-axis jet?”, Guidorzi, C., Clemens, S. Kobayashi, S., **Granot, J.**, and 30 other co-authors, 2009, A&A, **499**, 439–453
49. \* “Afterglow Observations Shed New Light on the Nature of X-ray Flashes”, **Granot, J.**, Ramirez-Ruiz, E., & Perna, R. 2005, ApJ, **630**, 1003–1014
50. \* “An Off-Axis Model for GRB 031203”, Ramirez-Ruiz, E., **Granot, J.**, Kouveliotou, C., Woosley, S. E., Patel, S. K., & Mazzali, P. A. 2005, **ApJL**, 625, L91–L94
51. \* “The Detectability of Orphan Afterglows”, Nakar, E., Piran, T., & **Granot, J.** 2002, ApJ, **579**, 699–705
52. \* “Off-Axis Afterglow Emission from Jetted Gamma-Ray Bursts”, **Granot, J.**, Panaitescu, A., Kumar, P., & Woosley, S. E. 2002, **ApJ Lett.**, 570, L61–L64

## Dynamics of GRB Jets: Numerical and Analytic studies

53. \* “On the Composition of GRBs’ Collapsar Jets”, Bromberg, O, **Granot, J.**, Piran, T. 2014, MNRAS, **450**, 1077–1088
54. \* “The dynamics of a highly magnetized jet propagating inside a star”, Bromberg, O., **Granot, J.**, Lyubarsky, Y., & Piran, T. 2014, MNRAS, **443**, 1532
55. \* “Gamma-Ray Burst Jets and their Radio Observations”, **Granot, J.**, & van der Horst, A. J. 2014, PASA, **31**, e008 (**invited review**, in a special issue on “Locating Astrophysical Transients”).
56. \* “Gamma-Ray Burst Jet Dynamics”, **Granot, J.** 2013, **invited review** for the proceedings of the *Fall 2012 GRB Symposium* (Marbella, Spain); EASPS, **61**, 141
57. \* “Scaling relations between numerical simulations and physical systems they represent”, **Granot, J.** 2012, MNRAS, **421**, 2610–2615
58. \* “On the lateral expansion of GRB jets”, **Granot, J.**, & Piran, T. 2012, MNRAS, **421**, 570
59. \* “Simulations of GRB Dynamics in a Stratified External Medium: Afterglow Lightcurves, Jet Breaks and Radio Calorimetry”, De Colle, F., Ramirez-Ruiz, E., **Granot, J.**, Lopez-Camara, D. 2012, ApJ, **751**, 57
60. \* “Gamma-Ray Burst Dynamics and Afterglow Radiation from Adaptive Mesh Refinement, Special Relativistic Hydrodynamic Simulations”, De Colle, F., **Granot, J.**, Lopez-Camara, D., & Ramirez-Ruiz, E. 2012, ApJ, **746**, 122
61. \* “The Evolution of a Structured Relativistic Jet and Gamma-Ray Burst Afterglow Light Curves”, Kumar, P., & **Granot, J.** 2003, ApJ, **591**, 1075–1085
62. “The Jet Angular Profile and the Afterglow Light Curves”, **Granot, J.**, Kumar, P., & Piran, T. 2004, in “Gamma Ray Bursts in the Afterglow Era - 3rd Workshop”, ed. M. Feroci, F. Frontera, N. Masetti, & L. Piro (San Francisco: ASP), **312**, p. 373
63. “Light Curves from an Expanding Relativistic Jet”, **Granot, J.**, Miller, M., Piran, T., Suen, W.M., & Hughes, P.A. 2001, in “Gamma-Ray Bursts in the Afterglow Era - 2nd Workshop”, ed. E. Costa, F. Frontera, & J. Hjorth (Berlin; **Springer**) p. 312
64. “Hydrodynamics and Radiation from a Relativistic Expanding Jet with Applications to GRB Afterglow”, **Granot, J.**, Miller, M., Piran, T., & Suen, W. M. 2000, AIP Conf. Proc. 526, 5th Huntsville Symposium on Gamma-Ray Bursts, ed. R. M. Kippen, R. S. Mallozzi & G. J. Fishman (New York: AIP), **534**, p. 540



## The GRB - Supernovae Connection

65. ◦ “A Common Central Engine for Long Gamma Ray Bursts and Type Ib/c Supernovae?”, Sobacchi, E., **Granot, J.**, Bromberg, O., & Sormani, M. C. 2017, submitted to MNRAS (arXiv:0705.00281)
66. \* “Radio limits on off-axis GRB afterglows and VLBI observations of SN 2003gk”, Bietenholz, M. F., De Colle, F., **Granot, J.**, Bartel, N., & Soderberg, A. M. 2014, MNRAS, **440**, 821–832
67. \* “Detailed radio view on two stellar explosions: XRF080109/SN2008D and SN2007uy in NGC 2770”, van der Horst, A. J., *et al.* 2011 (**J. Granot** author #7 out of 19), ApJ, **726**, 99
68. \* “A mildly relativistic radio jet from the normal Type Ic Supernova 2007gr”, Paragi, Z., *et al.* 2010 (**J. Granot** author #4 out of 13), **Nature**, 463, 516–518
69. \* “SN 2001em: Not so Fast”, Schinzel, F. K., Taylor, G. B., Stockdale, C. J., **Granot, J.**, Ramirez-Ruiz, E. 2008, ApJ, **691**, 1379–1385
70. \* “Prompt and Afterglow Emission Properties of GRBs with Spectroscopically identified Supernovae”, Kaneko, Y., Ramirez-Ruiz, E., **Granot, J.**, Kouveliotou, C., Woosley, S. E., *et al.* 2007, ApJ, **654**, 385–402
71. \* “The Case for a Misaligned Relativistic Jet from SN 2001em”, **Granot, J.**, & Ramirez-Ruiz, E. 2004, **ApJ Lett.**, 609, L9–L12
72. \* “Radio Imaging of GRB Jets in Nearby Supernovae”, **Granot, J.**, & Loeb, A. 2003, **ApJ Lett.**, 593, L81–L84

## Polarization in GRBs

73. \* “Radio Flares and the Magnetic Field Structure in GRB Outflows”, **Granot, J.**, & Taylor, G. B. 2005, ApJ, **625**, 263–270
74. \* “The Most Probable Cause for the High Gamma-Ray Polarization in GRB 021206”, **Granot, J.** 2003, **ApJ Lett.**, 596, L17–L21
75. \* “Linear Polarization in GRBs: The Case for an Ordered Magnetic Field”, **Granot, J.**, & Königl, A. 2003, **ApJ Lett.**, 594, L83–L87

## High Energy Emission from Relativistic Sources

76. ◦ “The Bright and the Slow – GRBs 100724B & 160509A with high-energy cutoffs at  $\lesssim 100$  MeV”, Vianello, G, Gill, R., **Granot, J.**, Omodei, N., Cohen-Tanugi, J., & Longo, F. 2017, submitted to ApJ (arXiv:1706.01481)
77. \* “Prospects for CTA observations of the young SNR RX J1713.7–3946”, the CTA consortium, 2017, ApJ, 840, 74 (14 pages)
78. \* “A Unified Model for GRB Prompt emission from Optical to Gamma Rays; a New Type of Standard Candle”, Guiriec, S., Kouveliotou, C., Hartmann, D. H., **Granot, J.**, Asano, K., Meszáros, P., Gill, R., Gehrels, N., & McEnery, J. 2016, **ApJ Lett.**, 831, L8
79. \* “Searching the Gamma-ray Sky for Counterparts to Gravitational Wave Sources: Fermi GBM and LAT Observations of LVT151012 and GW151226”, Racusin, J. L., *et al.* 2017, ApJ, **835**, 82
80. \* “Fermi-LAT Observations of the LIGO Event GW150914”, Ackermann, M., *et al.* 2016, **ApJ Lett.**, 823, L2
81. \* “Fermi-LAT Observations of the Gamma-ray Burst GRB130427A”, Ackermann, M., *et al.* 2014, **Science**, 343, 42–47
82. \* “The First Pulse of the Extremely Bright GRB130427A: A Test Lab for Synchrotron Shocks”, Preece, R., *et al.* 2014, **Science**, 343, 51–54
83. \* “New Fermi-LAT event reconstruction reveals more high-energy  $\gamma$ -rays from GRBs”, Atwood, W. B., *et al.* 2013, ApJ, **774**, 76 (**J. Granot** is a contact author)
84. \* “The First Fermi LAT Gamma-Ray Burst Catalog”, The Fermi LAT Collaboration, 2013, ApJS, 209, 11
85. \* “Multiwavelength observations of GRB 110731A: GeV emission from onset to afterglow”, The Fermi LAT/GBM Collaborations, 2013, ApJ, **763**, 71
86. \* “Constraints on the emission model of the “Naked-Eye Burst” GRB080319B”, Abdo, A. A., *et al.* 2012 (**J. Granot** author #13 out of 28), **ApJ Lett.**, 753, L31
87. \* “Constraining the High-Energy Emission from Gamma-ray Bursts with Fermi”, The Fermi LAT/GBM Collaborations, 2012, ApJ, **754**, 121
88. \* “Introducing the CTA concept”, The CTA Consortium, 2013, APh, **43**, 3–18
89. \* “Scientific Prospects for Cherenkov Telescope Array Observations of GRBs”, Inoue, S., **Granot, J.**, O’Brien, P., and 16 other co-authors, 2013, APh, **43**, 252–275

90. \* “Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy”, The CTA Consortium, 2011, *Exp. Astron.*, **32**, 193–316
91. \* “Detection of High-Energy Emission during the X-ray Flaring Activity in GRB 100728A”, the Fermi LAT/GBM collaborations, 2011, **ApJ Lett.**, 734, L27
92. \* “Constraints on the  $\gamma$ -ray Opacity of the Universe with the Fermi Gamma-Ray Space Telescope”, the Fermi LAT collaboration, 2010, *ApJ*, **723**, 1082–1096
93. \* “Detection of a Spectral Break in the Extra Hard Component of GRB090926A”, the Fermi LAT/GBM collaborations, 2011, *ApJ*, **729**, 114
94. \* “Fermi observations of high-energy gamma-ray emission from GRB 090217”, the Fermi LAT/GBM collaborations, 2010, **ApJ Lett.**, 717, L127–L132
95. \* “Fermi Observations of GRB 090510: A Short Hard GRB with an Additional, Hard Power-Law Component from 10 keV to GeV Energies”, the Fermi LAT/GBM collaborations, 2010, *ApJ*, **716**, 1178–1190 (**J. Granot** is a contact author)
96. “Highlights from Fermi GRB observations”, **Granot, J.**, for the Fermi LAT/GBM collaborations, invited talk, to appear in proc. of “The Shocking Universe – GRBs and High Energy Shock phenomena”, Venice, Italy, Sep. 14-18, 2009 (arXiv:1003.2452)
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