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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

Positions Held

2017 –	Research Professor of Physics, George Washington University
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

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

- ⋆ **191** papers published in refereed journals; **7** review articles; **2** book chapters
- ⋆ >**60** invited talks at conferences/meetings (and >60 colloquia/seminars)
- ⋆ >**16,000** (>22,000) citations, H-index of **64** (77); NASA/ADS (Google Scholar)

Professional Activity

- Head of the Astrophysics Research Center of the Open university (ARCO; 2023 -)
- Peer Review for: Nature, Science Magazine; Nature Astronomy; Nature Physics; Phys. Rev. (Letters; D; 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; PASA
- Review of proposals for: NASA (+panel); NSF (+panel); ERC; DFG; European Science Foundation (ESF); US-Israel Binational Science Foundation (BSF); Israel Science Foundation (ISF); STFC; SNS; Aristeia; WHT; Gemini Observatory; GMRT
- Panel Member of Alon Scholarships (for Integration of Outstanding Faculty in Israel)
- 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 L**arge **A**rea **T**elescope collaboration 2007–
- Member of the **C**herenkov **T**elescope **A**rray Consortium 2008–

Select Personal Research Funding

- 2019–2023: ISF – NSFC joint research program (NIS 1,050,000)
- 2014–2019: Israel Science Foundation (ISF; with Yuri Lyubarsky; $\frac{1}{2}\times$ NIS 1,030,000)
- 2007–2012: Royal Society Wolfson Research Merit Award (£ 18,000)
- 2007–2011: Marie Curie International Reintegration Grant (€ 100,000)

Teaching and Mentoring Experience

- Head of the Physics Program at the Open University of Israel (2017 -)
- 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)
- Gave tutorial talks at summer schools and review talks at conferences
- Worked as a teaching assistant (1996 – 1998) and physics lab instructor (1998 – 2001)

Invited Talks

63. "Relativistic Accelerators: Gamma-Ray Bursts", invited review talk at the conference "PASTO - Particle Acceleration in Astrophysical Objects", September 7, 2022, Frascati, Rome, Italy

62. "Gamma-Ray Burst Polarization: Status and Perspectives", invited review talk at the conference "Astrophysical Polarimetry in the Time-Domain Era", September 1, 2022, Lecco, Italy

61. "GRB Jets from Compact Binary Mergers in the Era of Gravitational Wave Astronomy", invited talk at the conference "Astrophysics in the Next Decade: From the First Stars to Intelligent Life", a meeting in celebration of Avi Loeb's 60th birthday, June 7, 2022, Martha's Vineyard, MA, USA

60. "Binary neutron star mergers - insights from multi-messenger observations", invited review talk at the conference "Growing Black Holes: Accretion and Mergers", May 18, 2022, Kathmandu, Nepal

59. "High-Energy Emission from GRBs: Theoretical Perspectives", invited talk at the 16th Marcel Grossmann meeting (MG16), July 7, 2021, Online

COVID-19 pandemic (hardly any international conferences)

58. "Polarization in Gamma-Ray Bursts", invited talk at workshop to bring together experts on High Energy Astrophysics from Japan and Israel, 22 July 2019, RIKEN, Kobe, Hyogo, Japan

57. "Polarization in Gamma-Ray Bursts", invited talk at the conference "Gamma-Ray Bursts and Related Astrophysics in Multi-Messenger Era", May 13, 2019, Nanjing, China

56. "Lessons from GW170817 / GRB170817A", invited talk at the workshop "Multi-Wavelength Survey and Time-Domain Astronomy" May 10, 2019, Shanghai, China

55. "GRB Afterglow Polarization and GRB170817A / GW170817", invited talk at the workshop "Shedding New Light on Gamma-Ray Bursts with Polarization Data", November 28, 2018, Geneva, Switzerland

54. "Lessons from GW170817 / GRB170817A", invited plenary talk at the conference "Exploring the Universe: Near Earth Space Science to Extra-Galactic Astronomy" (a tribute to S. N. Bose's 125th birth anniversary), Nov.15, 2018, Kolkata, India

53. "GeV Emission from GRBs: New Perspectives from *Fermi*", invited talk at the 15th Marcel Grossmann meeting (MG15), July 6, 2018, Rome, Italy

52. "The Bright and the Slow – GRBs 100724B & 160509A with high-energy cutoffs at $\lesssim$ 100 MeV", invited talk at the 15th Marcel Grossmann meeting (MG15), given on behalf of Dr. Giacomo Vianello, July 2, 2018, Rome, Italy

51. "Lessons from GW170817/GRB170817A", invited talk at the 3rd PANDA Symposium on Time Domain Astronomy & 1st results from Insight-HXMT; June 19, 2018, Chengdu, China

50. "Magnetic Fields in Gamma-Ray Bursts", invited review talk at the conference "Deciphering the Violent Universe", December 14, 2017, Playa del Carmen, Mexico

49. "Late Time GRB Radio Emission: Calorimetry & Identifying Orphan Afterglows", "Radio Emission from NS-NS/BH Mergers", invited talks at the 3rd Capitol Chats, on "Where are all the radio transients and what are they?", August 16-18, 2017, GWU, Washington DC, USA

48. "GRB Prompt Emission Physics", "Prompt GRB Emission: Spectra & Polarization", invited talks at the Workshop on Gamma-Ray Bursts: Prompt to Afterglow, July 4-7, 2017 NCRA-TIFR, Pune, Maharashtra, India

47. "Lessons from the First Magnetar Wind Nebula", invited talk at the High Energy Astrophysics Workshop, February 28, 2017, Jerusalem, Israel

46. "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 2nd Capitol Chats, on "Magnetars, what are they? ", July 13 – 15, 2016, GWU, Washington DC, USA

45. "Bounds on Lorentz Invariance Violation from Fermi GRBs", review talk at the 17th Lomonosov Conference on Elementary Particle Physics, 22/8/15, Moscow, Russia

44. "Jet in Star", "Magnetic acceleration of GRB jets", "GRB130427A: evidence for genuine violation of $E_{\text{syn,max}}$", at *The 1st Capitol Chat, on "GRBs and their prompt emission radiation mechanism"*, June 8 – 10, 2015, GWU, Washington DC, USA

43. "Gamma-Ray Bursts in the Fermi Era", plenary review talk at the 5th Fermi Symposium, October 23, 2014, Nagoya, Japan

42. "Experimental Bounds on Quantum Gravity from Fermi GRB Observations", review talk at "Experimental search for quantum gravity", 3/9/14, SISSA, Trieste, Italy

41. "Jet acceleration, collimation and Stability", at *The Strongest Magnetic Fields in the Universe*, Feb. 6, 2014, International Space Science Institute, Bern, Switzerland

40. "GRB Jet Dynamics", invited review talk at *Future Directions of Relativistic Jets*, 31/8/2013, Skokloster, Sweden

39. "Searches for Quantum Gravity Signals using Gamma-Ray Bursts" invited talk at the conference *LOOPS 13*, July 23, 2013, Perimeter Institute, Waterloo, Canada

38. "GRB Jets: a Theoretical Review", invited review talk at the workshop *Locating Astrophysical Transients*, May 15, 2013, Lorentz Center, Leiden, The Netherlands

37. "GRB Prompt Emission Mechanism: Implications of Fermi Observations", invited talk at the 13th HEAD meeting, April 10, 2013, Monterey, California, USA

36. "Constraining Quantum Gravity with GRBs", at *Experimental Search for Quantum Gravity: the hard facts*, October 24/10/12, Perimeter Institute, Waterloo, Canada

35. "GRB Jet Dynamics: Analytic Models and Numerical Simulations", invited talk at the *Fall 2012 Gamma-Ray Burst Symposium*, 9/10/12, Marbella, Malaga, Spain

34. "Magnetic Field Decay in Magnetars and implications for evolutionary links", invited talk at the 39th COSPAR Scientific Assembly, July 19, 2012, Mysore, India

33. "GRB Jet Dynamics and Afterglow Lightcurves", invited talk at the 13th Marcel Grossmann meeting (MG13), July 6, 2012, Stockholm, Sweden

32. "Magnetized Relativistic Outflows: effects of strong time dependence", invited talk at the 13th Marcel Grossmann meeting (MG13), July 5, 2012, Stockholm, Sweden

31. "GRBs: Current Status & Future Prospects", review talk at the International Conference on Astrophysics & Cosmology (ICAC2012), 20/3/12, Kathmandu, Nepal

30. "What we could learn from Cherenkov Telescope Array observations of GRBs", invited talk at the 12th HEAD meeting, 7/9/11, Newport, Rhode Island, USA

29. "Constraints on Lorentz Invariance Violation from Fermi", invited talk at the *First LINK Workshop: Probing physics beyond the Standard Model with CTA*, November 12, 2010, Oxford, UK

28. "GRB theory in the Fermi Era", invited talk at the conference *Accretion and Outflow in Black Hole Systems*, October 15, 2010, Kathmandu, Nepal

27. "Current Status and Future Prospects of GRB Science", invited review talk at the RAS special discussion meeting *Explosive Transients*, June 18, 2010, Liverpool, UK

26. "Limits on Lorentz Invariance Violation from Fermi GRBs", invited talk at the meeting *Fundamental Physics Laws: Lorentz Symmetry and Quantum Gravity*, June 2, 2010, Paris, France

25. "Highlights from Fermi GRB observations", invited review talk at the Royal Astronomical Society *NAM 2010* meeting, April 14, 2010, Glasgow, Scotland

24. "Highlights from Fermi Gamma-Ray Space Telescope observations of GRBs", invited talk at the "April" 2010 Meeting of the APS, 14/2/10, Washington, DC

23. "High-Energy Fermi GRBs, Long and Short", invited talk at the 215th meeting of the American Astronomical Society, January 4, 2010, Washington, DC, USA

22. "Some Implications of Fermi High-Energy GRB Observations", invited talk at the meeting *The Shocking Universe*, September 15, 2009, San Servolo, Venice, Italy

21. "GRB High-Energy Emission: First Year Highlights from Fermi", invited talk at *Particle Acceleration in Astrophysical Plasmas*, 17/8/09, KITP, Santa Barbara, CA

20. "Similarities and Differences between Fermi GRB 080825C and AGILE GRB 080514B", invited talk at the 6th Science AGILE Workshop, April 23, 2009, Milan, Italy

19. "First Results from Fermi on GRBs", invited talk at the Symposium *First Results from the Fermi Gamma-ray Space Telescope*, March 7, 2009, Tokyo, Japan

18. "GRB Theory in the Fermi Era", invited talk at the 44th Rencontres de Moriond on *Very High Energy Phenomena in the Universe*, February 2, 2009, La Thuile, Italy

17. "Gamma-Ray Bursts and High Energy Astrophysics", invited talk at the STFC summer school for new research students in astronomy, Sep. 2, 2008, Hatfield, UK

16. "Theory of GRB Afterglows", invited review talk at the workshop *Supernovae and GRBs at low z and in the Era of Reionization* May 28, 2008, Darjeeling, India

15. "Critical Review of Basic Afterglow Concepts", invited review talk at the conference *070228: The Next Decade of GRB Afterglows*, 21/3/07, Amsterdam, The Nethrlands

14. "Theory of GRB Afterglows", invited talk at the conference *Circumstellar Media and Late Stages of Massive Stellar Evolution*, September 7, 2006, Ensenada, Mexico

13. "Structure and Dynamics of GRB Jets", invited talk at the conference *Challenges in Relativistic Jets*, June 27, 2006, Cracow, Poland

12. "Magnetar-GRB Connection & SGR 1806-20 Giant Flare", invited talk at the workshop *The Multicoloured Landscape of Compact Objects and their Explosive Origins*, June 13, 2006, Cefalu, Sicily, Italy

11. "The Flat Decay Phase in the Early X-ray Afterglows of *Swift* GRBs", invited talk at *Swift and GRBs: Unveiling the Relativistic Universe*, June 5, 2006, Venice, Italy

10. "GRB Jet Propagation Outside the Progenitor", invited talk at the conference "Supernova and GRB Remnants", Feb. 6, 2006, KITP, Santa Barbara, CA, USA

9. "Probing the Magnetic Field Structure in GRBs via Polarization Measurements" invited talk at the mini-conference on "Astrophysical Explosions: from Engines to Remnants", 47th Annual Meeting of DPP, APS, Oct. 25, 2005, Denver, CO, USA

8. "Physics of GRB Jets", invited lecture at the summer school "Gamma-Ray Bursts: the First Three Hours", August 31, 2005, Santorini, Greece

7. "Electromagnetic Models of Gamma-Ray Bursts: A Tutorial", invited lecture at the summer school "Gamma-Ray Bursts: the First Three Hours", given on behalf of Prof. Roger Blandford, August 29, 2005, Santorini, Greece

6. "The Structure and Dynamics of GRB Jets", invited talk at the program *Physics of Astrophysical Outflows and Accretion Disks*, 12/3/05, KITP, Santa Barbara, CA

5. "Jets in Gamma-Ray Bursts", invited talk at the conference "Triggering Relativistic Jets", April 1, 2005, Cozumel, Mexico

4. "Radio Flares and the Magnetic Field Structure in GRB Outflows", invited talk at the 22nd Texas Symposium on Relativistic Astrophysics, December 15, 2004, Stanford University, CA, USA

3. "X-ray and Gamma-Ray Polarization in Gamma-Ray Bursts", invited talk at the workshop "X-ray Polarimetry", February 10, 2004, SLAC, Stanford, CA, USA

2. "Some Theoretical Implications of Recent GRB Observations", invited talk at the 10th Marcel Grossmann meeting on general relativity, 25/7/03, Rio de Janeiro, Brazil

1. "GRB Jets and Orphan Afterglows", invited talk in "Gamma Ray Bursts: the Brightest Explosions in the Universe" the Second Harvard-Smithsonian Conference on Theoretical Astrophysics, May 22, 2002, Cambridge, MA, USA

List of Publications

Articles **published in refereed journals** are marked by '∗'

Articles **submitted** to refereed journals but not yet published are marked by '∘'

Magnetized Relativistic Jets: Dynamics, Dissipation, Radiation

1. ∗ "GRB Spectrum from Gradual Dissipation in a Magnetized Outflow", Gill, R., **Granot, J.**, & Beniamini, P. 2020, MNRAS, 499, 1356 – 1372
2. ∗ "The Effect of Pair Cascades on the High-Energy Spectral Cutoff in Gamma-Ray Bursts", Gill, R., & **Granot**, J. 2018, **MNRAS Lett.**, 475, L1 – L5
3. ∗ "2D Relativistic MHD Simulations of the Kruskal-Schwarzschild Instability in a Relativistic Striped Wind", Gill, R., **Granot, J.**, & Lyubarsky, Y. 2018, MNRAS, 474, 3535 – 3546
4. ∗ "GRBs from Magnetic Reconnection: Variability and Robustness of Lightcurves", **Granot, J.** 2016, **ApJ Lett.**, 816, L20 (6 pages)
5. ∗ "Properties of GRB Lightcurves from Magnetic Reconnection", Beniamini, P., & **Granot, J.** 2016, MNRAS, **459**, 3635 – 3658
6. ∗ "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, **191**, 471 – 518
7. ∗ "The effects of sub-shells in highly magnetized relativistic flows", **Granot, J.** 2012b, MNRAS, **421**, 2467 – 2477
8. ∗ "Interaction of a highly magnetized impulsive relativistic flow with an external medium", **Granot, J.** 2012a, MNRAS, **421**, 2442 – 2466
9. ∗ "Impulsive Acceleration of Strongly Magnetized Relativistic Flows", **Granot, J.**, Komissarov, S. S., & Spitkovsky, A. 2011, MNRAS, **411**, 1323 – 1353
10. ∗ "Opacity Build-up in Impulsive Relativistic Sources", **Granot, J.**, Cohen-Tanugi, J., & do Couto e Silva, E. 2008, ApJ, **677**, 92 – 126

High Energy Neutrinos

11. ∗ "Neutrinos from Pulsar Wind Bubbles as Precursors to Gamma-Ray Bursts", **Granot, J.**, & Guetta, D. 2003, **Phys. Rev. Lett.**, 90, 191102 (4 pages)
12. ∗ "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 (4 pages)

Fundamental Physics: Astrophysical Tests of Lorentz Invariance

13. ∗ "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

14. ∗ "Lorentz Invariance Violation: latest Fermi results and GRB/AGN complementarity", Bolmont, J., *et al.* 2014 (**J. Granot** author 6 of 9), NIMPA, **742**, 165

15. ∗ "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

16. ∗ "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*).

Gravitational Microlensing

17. ∗ "The Mean Number of Extra Microimage Pairs for Macrolensed Quasars" **Granot, J.**, Schechter, P. L., & Wambsganss, J. 2003, ApJ, **583**, 575 – 583

18. ∗ "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

19. ∗ "Chromatic Signatures in the Microlensing of GRB Afterglows" **Granot, J.**, & Loeb, A. 2001, **ApJ Lett.**, 551, L63 – L66

Structure, Dynamics and Stability of Relativistic Shocks

20. ∗ "Relativistic Shock Reflection using Integral Conservation Laws", **Granot, J.**, & Rabinovich, M. 2024, Physics of Fluids, **36**, 016142 (15 pages)

21. ∗ "A Numerical Study of Relativistic Oblique Shock Reflection", Bera, P., **Granot, J.**, Rabinovich, M., & Beniamini, P. 2024, Physics of Fluids, **36**, 016141 (14 pages)

22. ∗ "Stability of Radiative Relativistic Shocks to Global Oscillations", Königl, A., & **Granot, J.** 2008, International Journal of Modern Physics D, **17**, 1777 – 1786

23. ∗ "Radiative Hydromagnetic Shocks in Relativistic Outflow Sources", **Granot, J.**, & Königl, A. 2001, ApJ, **560**, 145 – 159

Polarization in GRBs

24. ∗ "Prompt GRB Polarization from Non-Axisymmetric Jets",
Gill, R., & **Granot, J.** 2024, MNRAS, **527**, 12178 – 12195

25. ∗ "Gamma rays from a reverse shock with turbulent magnetic fields in GRB 180720B",
Arimoto, M., *et al.* 2024 (**J. Granot** author #6 out of 17),
Nature Astronomy, 8, 134 – 144

26. ∗ "GRB Polarization: A Unique Probe of GRB Physics",
Gill, R., Kole, M., & **Granot, J.** 2021, Galaxies, **9**, 82 (78 pages); invited review article in the special issue 'Gamma-Ray Burst Science in 2030'

27. ∗ "Temporal Evolution of Prompt GRB Polarization",
Gill, R., & **Granot, J.** 2021, MNRAS, **504**, 1939 – 1958

28. ∗ "Constraints on the Magnetic Field Structure in Collisionless Relativistic Shocks with a Radio Afterglow Polarization Upper Limit in GW170817",
Gill, R., & **Granot, J.** 2020, MNRAS, **491**, 5815 – 5825

29. ∗ "ALMA Detection of a Linearly Polarized Reverse Shock in GRB 190114C",
Laskar, T., et al. 2019 (**Granot J.** author #4 of 14) **ApJ Lett.**, 878, L26 (8 pp.)

30. ∗ "Linear polarization in gamma-ray burst prompt emission",
Gill, R., **Granot, J.**, & Kumar, P. 2020, MNRAS, **491**, 3343 – 3373

31. ∗ "Observatory science with eXTP",
in't Zand, J. J. M., et al. 2019, SCPMA, **62**, 029506 (42 pages)

32. ∗ "Radio Flares and the Magnetic Field Structure in GRB Outflows",
Granot, J., & Taylor, G. B. 2005, ApJ, **625**, 263 – 270

33. ∗ "The Most Probable Cause for the High Gamma-Ray Polarization in GRB 021206",
Granot, J. 2003, **ApJ Lett.**, 596, L17 – L21

34. ∗ "Linear Polarization in GRBs: The Case for an Ordered Magnetic Field",
Granot, J., & Königl, A. 2003, **ApJ Lett.**, 594, L83 – L87

Temporal Variability in GRB afterglows

35. ∗ "Smooth Light Curves from a Bumpy Ride: Relativistic Blast Wave Encounters a Density Jump", Nakar, E., & **Granot, J.** 2007, MNRAS, **380**, 1744 – 1760

36. ∗ "Refreshed Shocks from a γ-ray burst",
Granot, J., Nakar, E., & Piran, T. 2003, **Nature**, 426, 138 – 139

37. ∗ "Variability in GRB afterglows and GRB 021004"
Nakar, E., Piran, T., & **Granot, J.** 2003, New Astronomy, **8**, 495 – 505

Angular Structure of GRB Jets

38. ∗ "GRB 221009A Afterglow from a Shallow Angular Structured Jet", Gill, R., & **Granot, J.** 2023, **MNRAS Lett.**, 524, L78 – L83

39. ∗ "A structured jet explains the extreme GRB 221009A", O'Connor, *et al.* 2023 (**J. Granot** author #6 out of 32), **Science Advances**, 9, 1405 (13 pages)

40. ∗ "The Structure and Dynamics of GRB Jets", **Granot, J.** 2006, **invited review** for the proceedings of the conference "Trigerring Relativistic Jets", held in Cozumel, Mexico, on March 28 to April 1, 2005; Rev. Mex. A&A, **27**, 140 – 165

41. ∗ "Revealing the Jet Structure of GRB 030329 with High Resolution Multicolor Photometry", Gorosabel, J., Castro-Tirado, A. J., Ramirez-Ruiz, E., **Granot, J.**, *et al.* 2006, **ApJ Lett.**, 641, L13 – L16

42. ∗ "Afterglow Light Curves from Impulsive Relativistic Jets with an Unconventional Structure", **Granot, J.** 2005, ApJ, **631**, 1022 – 1031

43. ∗ "Two-Component Jet Models of Gamma-Ray Burst Sources", Peng, F., Königl, A., & **Granot, J.** 2005, ApJ, **626**, 966 – 977

44. ∗ "Constraining the Structure of GRB Jets through the log(N)-log(S) Distribution", Guetta, D., **Granot, J.**, & Begelman, M.C. 2005, ApJ, **622**, 482 – 491

45. ∗ "Testing the Predictions of the Universal Structured GRB Jet Model", Nakar, E., **Granot, J.**, & Guetta, D. 2004, **ApJ Lett.**, 606, L37 – L40

46. ∗ "Constraining the Structure of Gamma-Ray Burst Jets through the Afterglow Light Curves", **Granot, J.**, & Kumar, P. 2003, ApJ, **591**, 1086 – 1096

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

47. ∗ "Robust Features of Off-Axis Gamma-Ray Burst Afterglow Lightcurves", Beniamini, P., **Granot, J.**, & Gill, R. 2022, MNRAS, **515**, 555 – 570

48. ∗ "Afterglow Lightcurves from Misaligned Structured Jets", Beniamini, P., **Granot, J.**, & Gill, R. 2020, **493**, 3521 – 3534

49. "Jets and Gamma-Ray Burst Unification Schemes", **Granot, J.**, & Ramirez-Ruiz, E. 2013, book chapter, in "Gamma-ray Bursts" (**Cambridge University Press**; chapter 11, pages 215 – 250)

50. ∗ "A late time afterglow rebrightening in GRB081028", Margutti, R., Genet, F., **Granot, J.**, *et al.* 2010, MNRAS, **402**, 46 – 64

51. ∗ "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

52. ∗ "Afterglow Observations Shed New Light on the Nature of X-ray Flashes", **Granot, J.**, Ramirez-Ruiz, E., & Perna, R. 2005, ApJ, **630**, 1003 – 1014

53. ∗ "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

54. ∗ "The Detectability of Orphan Afterglows", Nakar, E., Piran, T., & **Granot, J.** 2002, ApJ, **579**, 699 – 705

55. ∗ "Off-Axis Afterglow Emission from Jetted Gamma-Ray Bursts", **Granot, J.**, Panaitescu, A., Kumar, P., & Woosley, S. E. 2002, **ApJ Lett.**, 570, L61 – L64

The GRB - Supernovae Connection

56. ∗ "A Common Central Engine for Long Gamma Ray Bursts and Type Ib/c Supernovae?", Sobacchi, E., **Granot, J.**, Bromberg, O., & Sormani, M. C. 2017, MNRAS, 472, 616 – 627

57. ∗ "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

58. ∗ "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 – 110

59. ∗ "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

60. ∗ "SN 2001em: Not so Fast", Schinzel, F. K., Taylor, G. B., Stockdale, C. J., **Granot, J.**, Ramirez-Ruiz, E. 2008, ApJ, **691**, 1379 – 1385

61. ∗ "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

62. ∗ "The Case for a Misaligned Relativistic Jet from SN 2001em", **Granot, J.**, & Ramirez-Ruiz, E. 2004, **ApJ Lett.**, 609, L9 – L12

63. ∗ "Radio Imaging of GRB Jets in Nearby Supernovae", **Granot, J.**, & Loeb, A. 2003, **ApJ Lett.**, 593, L81 – L84

Highly Magnetized Neutron Stars: Phenomenology, Theory

64. ∗ "Spectral modification of magnetar flares by resonant cyclotron scattering", Yamasaki, S., Lyubarsky, Y., **Granot, J.**, & Göğüş, E. 2020, MNRAS, **498**, 484 – 494

65. ∗ "The Sleeping Monster: NuSTAR observations of SGR 1806−20, 11 years after the Giant Flare", Younes, G. A., et al. 2017, ApJ, **851**, 17 (8 pages)

66. ∗ "X-ray and Radio Observations of the Magnetar J1935+2154 During its 2014, 2015, and 2016 Outbursts", Younes, G. A., et al. 2017 (**J. Granot** author #11 out of 13), ApJ, **847**, 85 (15 pages)

67. ∗ "Burst and Outburst Characteristics of Magnetar 4U 0142+61", Göğüş, E., et al. 2017 (**J. Granot** author #7 out of 13) ApJ, **835**, 68 (8 pages)

68. ∗ "The High Frequency Radio Emission of the Galactic Center Magnetar SGR J1745 − 29 during a Transitional Period", Gelfand, J., et al. 2017 (**J. Granot** author #4 out of 9), ApJ, 850, 53 (7 pages)

69. ∗ "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. 2017, MNRAS, **464**, 4895 – 4926

70. ∗ "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 (17 pages)

71. ∗ "The wind nebula around magnetar Swift J1834.9 − 0846", Younes, G., *et al.* 2016 (**J. Granot** author #5 out of 15) , ApJ, 824, 138 (12 pages)

72. ∗ "Five Year Fermi/GBM Magnetar Burst Catalog", Collazzi, A. C., *et al.* 2015 (**J. Granot** author #8 out of 21), ApJS, **218**, 11 (30 pages)

73. ∗ "Quasi-Periodic Oscillations in Short Recurring Bursts of SGR J1550−5418", Huppenkothen, D., *et al.* 2014 (**J. Granot** author 10 of 14), ApJ, **787**, 128 (13 pp.)

74. ∗ "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 (11 pages)

75. ∗ "Quasi-Periodic Oscillations and Broadband Variability in Short Magnetar Bursts", Huppenkothen, D., *et al.* 2013 (**J. Granot** author #8 of 10), ApJ, **768**, 87 (25 pages)

76. ∗ "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 (11 pages)

77. ∗ "Broadband Spectroscopy of SGR J1550-5418 Bursts", Lin, L., *et al.* 2012 (**J. Granot** author #4 out of 12), ApJ, **756**, 54 (12 pages)

78. ∗ "Magentic Field Decay in Neutron Stars: from SGRs to Weak Field Magnetars", Dall'Osso, S., **Granot, J.**, & Piran, T. 2012, MNRAS, **422**, 2878 – 2903

79. ∗ "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 of 37), ApJ, **749**, 122 (12 pages)

80. ∗ "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 (6 pages)

81. ∗ "Fermi/GBM Observations of SGRJ0501+4516 Bursts", Lin, L., *et al.* 2011 (**J. Granot** author #10 out of 30), ApJ, **739**, 87 (16 pages)

82. ∗ "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

83. ∗ "Magnetar Twists: Fermi/Gamma-ray Burst Monitor detection of SGR1550−5418", Kaneko, Y., *et al.* 2010 (**J. Granot** author #4 out of 14) ApJ, **710**, 1335 – 1342

84. ∗ "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

85. ∗ "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

86. ∗ "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

87. ∗ "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 – L92

88. ∗ "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

89. ∗ "A giant γ-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

90. ∗ "An expanding radio nebula produced by a giant flare from magnetar SGR 1806−20", Gaensler, B. M., *et al.* 2005, (**J. Granot** author #7 of 19), **Nature**, 434, 1104 – 1106

Dynamics of GRB Jets: Numerical and Analytic studies

91. ∗ "On the Composition of GRBs' Collapsar Jets", Bromberg, O, **Granot, J.**, Piran, T. 2014, MNRAS, **450**, 1077 – 1088

92. ∗ "The dynamics of a highly magnetized jet propagating inside a star", Bromberg, O., **Granot, J.**, Lyubarsky, Y., & Piran, T. 2014, MNRAS, **443**, 1532 – 1548

93. ∗ "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"; 35 pages).

94. ∗ "Gamma-Ray Burst Jet Dynamics", **Granot, J.** 2013, **invited review** for the proceedings of the *Fall 2012 GRB Symposium* (Marbella, Spain); EASPS, **61**, 141 – 152

95. ∗ "Scaling relations between numerical simulations and physical systems they represent", **Granot, J.** 2012, MNRAS, **421**, 2610 – 2615

96. ∗ "On the lateral expansion of GRB jets", **Granot, J.**, & Piran, T. 2012, MNRAS, **421**, 570 – 587

97. ∗ "Simulations of GRB Dynamics in a Stratified External Medium: Afterglow Lightcurves, Jet Breaks and Radio Calorimetry", De Colle, F., Ramirez-Ruiz, E., **Granot, J.**, López-Cámara, D. 2012, ApJ, **751**, 57 (14 pages)

98. ∗ "Gamma-Ray Burst Dynamics and Afterglow Radiation from Adaptive Mesh Refinement, Special Relativistic Hydrodynamic Simulations", De Colle, F., **Granot, J.**, López-Cámara, D., & Ramirez-Ruiz, E. 2012, ApJ, **746**, 122 (18 pages)

99. ∗ "The Evolution of a Structured Relativistic Jet and Gamma-Ray Burst Afterglow Light Curves", Kumar, P., & **Granot, J.** 2003, ApJ, **591**, 1075 – 1085

100. "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

101. "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

102. "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

High Energy Emission from Relativistic Sources

103. ∘ "Prospects for gamma-ray observations of the Perseus galaxy cluster with the Cherenkov Telescope Array", the CTA Consortium, 2023, submitted to JCAP (arXiv:2309.03712)

104. ∗ "Sensitivity of the Cherenkov Telescope Array to TeV photon emission from the Large Magellanic Cloud", the CTA Consortium, 2023, MNRAS, **523**, 5353 – 5387

105. ∗ "Gamma-Ray Bursts at TeV Energies: Theoretical Considerations", Gill, R., & **Granot, J.** 2022, Galaxies, **10**, 74 (34 pages); invited review article in the special issue 'Extragalactic TeV Astronomy'

106. ∗ "High-Energy Emission from a Magnetar Giant Flare in the Sculptor Galaxy", The *Fermi*-LAT Collaboration, 2021, **Nature Astronomy**, 5, 385 – 391

107. ∗ "Sensitivity of the Cherenkov Telescope Array for probing cosmology and fundamental physics with gamma-ray propagation", the CTA consortium, 2021, JCAP, **02**, 048 (66 pages)

108. ∗ "Modeling the prompt optical emission of GRB 180325A: the evolution of a spike from the optical to gamma-rays", Becerra, R. L., De Colle, F., Cantó, J., Lizano, S., González, R. F., **Granot, J.**, et al. 2021, ApJ, **908**, 39 (11 pages)

109. ∗ "Sensitivity of the Cherenkov Telescope Array to a dark matter signal from the Galactic centre", the CTA consortium, 2021, JCAP, **01**, 057 (64 pages)

110. ∗ "*Fermi* and *Swift* Observations of GRB 190114C: Tracing the Evolution of High-Energy Emission from Promt to Afterglow", Ajello, M., et al. 2020, ApJ, **890**, 9 (19 pages)

111. ∗ "Observation of inverse Compton emission from a long γ-ray burst", MAGIC & Fermi collaborations, 2019, **Nature**, 575, 459 – 463

112. ∗ "Monte Carlo studies for the optimization of the Cherenkov Telescope Array layout", the CTA consortium, 2019, Astroparticle Physics, 111, 35 – 53

113. ∗ "*Fermi*-LAT Observations of the LIGO/VIRGO Event GW170817", Ajello, M., et al. 2018, ApJ, 861, 85 (10 pages)

114. ∗ "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. 2018, **ApJ**, 864, 163 (26 pages)

115. ∗ "Prospects for CTA observations of the young SNR RX J1713.7−3946", the CTA consortium, 2017, ApJ, 840, 74 (14 pages)

116. ∗ "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

117. ∗ "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 (13 pages)

118. ∗ "Fermi-LAT Observations of the LIGO Event GW 150914", Ackermann, M., *et al.* 2016, **ApJ Lett.**, 823, L2 (13 pages)

119. ∗ "Fermi-LAT Observations of the Gamma-ray Burst GRB 130427A", Ackermann, M., *et al.* 2014, **Science**, 343, 42 – 47

120. ∗ "The First Pulse of the Extremely Bright GRB 130427A: A Test Lab for Synchrotron Shocks", Preece, R., *et al.* 2014, **Science**, 343, 51 – 54

121. ∗ "New Fermi-LAT event reconstruction reveals more high-energy γ-rays from GRBs", Atwood, W. B., *et al.* 2013, ApJ, **774**, 76 (**J. Granot** is a contact author; 6 pages)

122. ∗ "The First Fermi LAT Gamma-Ray Burst Catalog", The Fermi LAT Collaboration, 2013, ApJS, 209, 11 (90 pages)

123. ∗ "Multiwavelength observations of GRB 110731A: GeV emission from onset to afterglow", The Fermi LAT/GBM Collaborations, 2013, ApJ, **763**, 71 (19 pages)

124. ∗ "Constraints on the emission model of the "Naked-Eye Burst" GRB 080319B", Abdo, A. A., *et al.* 2012 (**J. Granot** author #13 out of 28), **ApJ Lett.**, 753, L31 (5 pages)

125. ∗ "Constraining the High-Energy Emission from Gamma-ray Bursts with Fermi", The Fermi LAT/GBM Collaborations, 2012, ApJ, **754**, 121 (20 pages)

126. ∗ "Introducing the CTA concept", The CTA Consortium, 2013, APh, **43**, 3 – 18

127. ∗ "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

128. ∗ "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

129. ∗ "Detection of High-Energy Emission during the X-ray Flaring Activity in GRB 100728A", the Fermi LAT/GBM collaborations, 2011, **ApJ Lett.**, 734, L27 (6 pages)

130. ∗ "Constraints on the γ-ray Opacity of the Universe with the Fermi Gamma-Ray Space Telescope", the Fermi LAT collaboration, 2010, ApJ, **723**, 1082 – 1096

131. ∗ "Detection of a Spectral Break in the Extra Hard Component of GRB090926A", the Fermi LAT/GBM collaborations, 2011, ApJ, **729**, 114 (12 pages)

132. ∗ "Fermi observations of high-energy gamma-ray emission from GRB 090217", the Fermi LAT/GBM collaborations, 2010, **ApJ Lett.**, 717, L127 – L132

133. ∗ "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)

134. "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)

135. ∗ "Fermi Detection of Delayed GeV Emission from the Short Gamma-Ray Burst 081024B" the Fermi and Swift collaborations, 2010, ApJ, **712**, 558 – 564

136. ∗ "Swift and Fermi observations of the early afterglow of the short GRB 090510", the Swift and Fermi collaborations, 2010, **ApJ Lett.**, 709, L146 – L151

137. ∗ "Fermi Observations of GRB 090902B: A Distinct Spectral Component in the Prompt & Delayed Emission", Fermi & Swift collaborations, 2009, ApJ, **706**, L138

138. ∗ "Fermi observations of high-energy γ-ray emission from GRB 080825C", the Fermi LAT/GBM collaborations, 2009, ApJ, **707**, 580–592 (**J. Granot** is a contact author)

139. ∗ "Fermi observations of high-energy gamma-ray emission from GRB 080916C", the Fermi LAT and Fermi GBM Collaborations, 2009, **Science**, 323, 1688 – 1693

140. ∗ "Prospects for GRB science with the GLAST Large Area Telescope", the Fermi LAT collaboration, 2009, ApJ, **701**, 1673 – 1694

141. "GRB Theory in the Fermi Era", **J. Granot** for Fermi LAT/GBM collaborations, invited talk, proceedings of 44th Recontres de Moriond: "Very High Energy Phenomena in the Universe", La Thuile, Italy, February 1-8, 2009 (arXiv:0905.2206).

142. "Gamma Ray Burst Section of the White Paper on the Status and Future of Ground-based TeV Gamma-ray Astronomy", Falcone, A. D., *et al.* 2008 (arXiv:0810.0520)

143. ∗ "A Simple Test of the External Shock Model for the Prompt Emission in Gamma-Ray Bursts", Ramirez-Ruiz, E., & **Granot, J.** 2007, New Astronomy, **12**, 630–634

144. ∗ "Explaining the High Energy Spectral component in GRB 941017", **Granot, J.**, & Guetta, D. 2003, **ApJ Lett.**, 598, L11 – L14

145. ∗ "High-Energy Emission from the Prompt Gamma-Ray Burst", Guetta, D., & **Granot, J.** 2003, ApJ, **585**, 885 – 889

Swift: Short-Hard GRBs, Prompt GRB, Early Afterglows, etc.

146. ∗ "Photometric Redshift Estimation for Gamma-Ray Bursts from the Early Universe", Fausey, H. M., et al. 2023 (**J. Granot** author #18 out of 19), MNRAS, **526**, 5599 – 4612

147. ∗ "Internal Shocks Hydrodynamics: the Collision of Two Cold Shells in Detail", Rahaman, S. M., **Granot, J.**, & Beniamini, P. 2023, MNRAS, https://doi.org/10.1093/mnras/stad3979 (arXiv:2309.16327)

148. ∗ "Prompt Gamma-Ray Burst Emission from Internal Shocks - New Insights", Rahaman, S. M., **Granot, J.**, & Beniamini, P. 2024, **MNRAS Lett.**, 528, L45 – L51

149. ∗ "Fermi-GBM Discovery of GRB 221009A: An Extraordinarily Bright GRB from Onset to Afterglow", Lesage, S., et al. (The Fermi GBM and Fermi LAT Collaboration) 2023, **ApJ Lett.** 952, L42 (20 pages)

150. ∗ "Numerical Simulations of an Initially Top-Hat Jet and the Afterglow of GW170817 / GRB170817A", Gill, R., **Granot, J.**, De Colle, F., & Urrutia, G. 2019, ApJ, 883, 15 (8 pages)

151. ∗ "Off-Axis Emission of Short GRB Jets from Double Neutron Star Mergers and GRB 170817A", **Granot, J.**, Gill, R., Guetta, D., & De Colle, F. 2018, MNRAS **481**, 1597 – 1608

152. ∗ "Lessons from the short GRB 170817A – the First Gravitational Wave Detection of a Binary Neutron Star Merger", **Granot, J.**, Guetta, D., & Gill, R. 2017, **ApJ Lett.**, 850, L24 (5 pages)

153. ∗ "X-ray flare candidates in short gamma-ray bursts", Margutti, R., Chincarini, G., **Granot, J.**, and 7 co-authos, 2011, MNRAS, **417**, 2144 – 2160

154. ∗ "The missing link: Merging neutron stars naturally produce jet-like structures and can power short Gamma-Ray Bursts", Rezzolla, L., Giacomazzo, B., Baiotti, L., **Granot, J.**, Kouveliotou, C., & Aloy, M. A. 2011, **ApJ Lett.**, 732, L6

155. ∗ "The long rapid decay phase of the extended emission from the short GRB080503", Genet, F., Butler, N. R., & **Granot, J.** 2010, MNRAS, **405**, 695 – 700

156. ∗ "Limits on radioactive-powered emission associated with a short-hard GRB 070724A in a star-forming galaxy", Kocevski, D., Thöne, C., Ramirez-Ruiz, E., Bloom, J. S., **Granot, J.**, and 7 other co-authors, 2010, MNRAS, **404**, 963 – 974

157. ∗ "The spectral-temporal properties of the prompt pulses and rapid decay phase of GRBs", Willingale, R., Genet, F., **Granot, J.**, & O'Brien, P. T. 2010, MNRAS, **403**, 1296 – 1316

158. ∗ "Testing High Latitude Emission in GRBs", Genet, F., & **Granot, J.** 2009, MNRAS, **399**, 1328 – 1346

159. ∗ "Late time observations of GRB080319B: jet break, host galaxy and accompanying supernova", Tanvir, N. R., Rol, Levan, A., Fruchter, A., **Granot, J.**, and 13 other co-authors, 2009, ApJ, **725**, 625

160. ∗ "GRB 080503: Implications of a Naked Short Gamma-Ray Burst Dominated by Extended Emission", Perley, D. A., Metzger, B. D. **Granot, J.**, Butler, N. R., Sakamoto, T., Ramirez-Ruiz, E., et al. 2009, ApJ, **696**, 1871 – 1885

161. ∗ "GRB 080319B: A Naked-Eye Stellar Blast from the Distant Universe", Racusin, J. L., Karpov, S. V., Sokolowski, M., **Granot, J.**, and 87 other co-auhtors, 2008, **Nature**, 455, 183 – 188

162. ∗ "GRB 060714: No Clear Dividing Line between Prompt Emission and X-ray Flares", Krimm, H. A, **Granot, J.**, Marshal., F., Perri, M., Barthelmy, S. D., Burrows, D. N., Gehrels, N., Mészáros, P., & Morris, D. 2007, ApJ, **665**, 554 – 568

163. ∗ "The flat decay phase in the early X-ray afterglows of Swift GRBs", **Granot, J.** 2006, short review for "Swift and GRBs: Unveiling the Relativistic Universe", Venice, Italy, June 5-9, 2006; Il Nuovo Cimento B, **121**, 1073 – 1079

164. ∗ "Swift detects a remarkable gamma-ray burst, GRB 060614, that introduces a new classification scheme", Gehrels, N., Norris, J. P., Mangano, V., Barthelmy, S. D., Burrows, D. N., **Granot, J.**, *et al.* 2006, **Nature**, 444, 1044 – 1046

165. ∗ "Implications of the Early X-Ray Afterglow Observations of Swift GRBs", **Granot, J.**, Königl, A., & Piran, T. 2006, MNRAS, **370**, 1946 – 1960

166. ∗ "Distribution of Gamma-ray Burst Ejecta Energy with Lorentz Factor", **Granot, J.**, & Kumar, P. 2006, **MNRAS Lett.**, 366, L13 – L16

167. ∗ "The Case for Anisotropic Afterglow Efficiency within Gamma-Ray Burst Jets", Eichler, D., & **Granot, J.** 2006, **ApJ Lett.**, 641, L5 – L8

168. ∗ "Evidence for a Canonical GRB Afterglow Light Curve in the *Swift*/XRT Data", Nousek, J. A., Kouveliotou, C., Grupe, D., Page, K., **Granot, J.**, Ramirez-Ruiz, and 22 other co-authors, 2006, ApJ, **642**, 389 – 400

169. ∗ "The Galaxy Hosts and Large-Scale Environments of Short-Hard γ-ray Bursts", Prochaska, J. X., Bloom, J. S., Chen, H.-W., Foley, R. J., Perley, D. A., Ramirez-Ruiz, E., **Granot, J.**, Lee, W. H., *et al.* 2005, ApJ, **642**, 989 – 994

170. ∗ "Constraints on Short Gamma-Ray Burst Models with Optical Limits of GRB 050509b", Hjorth, J., Sollerman, J., Gorosabel, J., **Granot, J.**, Klose, S., Kouveliotou, C., Melinder, J., Ramirez-Ruiz, E., *et al.* 2005, **ApJ Lett.**, 630, L117 – L120

171. ∗ "A Compact Binary Merger Model for GRB 050509b", Lee, W. H., Ramirez-Ruiz, E., & **Granot, J.** 2005, **ApJ Lett.**, 630, L165 – L168

172. ∗ "Closing in on a Short-Hard Burst Progenitor: Constraints from Early-Time Optical Imaging and Spectroscopy of a Possible Host Galaxy of GRB 050509b", Bloom, J. S., Prochaska, J. X., Pooley, D., Blake, C. W., Foley, R. J., Jha, S., Ramirez-Ruiz, E., **Granot, J.**, *et al.* 2006, ApJ, **638**, 354 – 368

Other Transient or Variable Sources

173. ∗ "Swift Deep Galactic Plane Survey Classification of Swift J170800-402551.8 as a Candidate Intermediate Polar Cataclysmic Variable", O'Connor, B., *et al.* 2023 (**J. Granot** author #16 out of 27), MNRAS, **525**, 5015 – 5024

174. ∗ "The Swift Deep Galactic Plane Survey (DGPS) Phase-I Catalog", O'Connor, B., *et al.* 2023 (**J. Granot** author #16 out of 33), ApJS, **269**, 49 (20 pages)

175. ∗ "Identification of 1RXS J165424.6-433758 as a Polar Cataclysmic Variable", O'Connor, B., *et al.* 2023 (**J. Granot** author #16 out of 27), ApJ, **957**, 89 (16 pages)

176. ∗ "Identification of an X-ray Pulsar in the BeXRB system IGR18219–1347", O'Connor, B., et al. 2022 (**J. Granot** author #17 out of 28), ApJ, **927**, 139 (13 pages)

177. ∗ "Swift/XRT Deep Galactic Plane Survey Discovery of a New Intermediate Polar Cataclysmic Variable, Swift J183920.1−045350", Gorgone, N. M., et al. 2021 (**J. Granot** author #16 out of 23), ApJ, **923**, 243 (13 pages)

178. ∗ "Discovery and Identification of MAXI J1621−501 as a Type I X-ray Burster with a Super-Orbital Period", Gorgone, N., et al. 2019 (**J. Granot** author #17 out of 28), ApJ, **884**, 168 (24 pages)

179. ∗ "Broadband monitoring tracing the evolution of the jet and disk in the black hole candidate X-ray binary MAXI1659−152", van der Horst, A. J., *et al.* 2013 (**J. Granot** author #19 out of 34), MNRAS, **436**, 2625 – 2638

180. ∗ "The shortest orbital period black hole binary revealed by VLBI", Paragi, Z., *et al.* 2013 (**J. Granot** author #7 out of 10), MNRAS, **432**, 1319 – 1329

181. ∗ "High Energy Emission from the Double Pulsar system J0737–3039" **Granot, J.**, & Mészáros, P. 2004, **ApJ Lett.**, 609, L17 – L20

Detailed Study of GRB Afterglow Emission

182. ∗ "Afterglow Imaging and Polarization of Misaligned Structured GRB Jets and Cocoons: Breaking the Degeneracy in GRB 170817A", Gill, R., & **Granot, J.** 2018, MNRAS, 478, 4128 – 4141

183. ∗ "Off-axis afterglow light curves and images from 2D hydrodynamic simulations of double-sided GRB jets in a stratified external medium", **Granot, J.**, De Colle, F., & Ramirez-Ruiz, E. 2018, MNRAS, **481**, 2711 – 2720

184. ∗ "A Comprehensive Radio View of the Extremely Bright Gamma-Ray Burst 130427A", van der Hosrt, A. J., *et al.* 2014 (**J. Granot** author 4 of 14), MNRAS, **444**, 3151

185. ∗ "NuSTAR Observations of GRB 130427A Establish a Single Component Synchrotron Afterglow Origin for the Late Optical to Multi-GeV Emission", Kouveliotou, C., **Granot, J.**, Racusin, J., *et al.* 2013, **ApJ Lett.**, 779, L1

186. ∗ "VLBI, Archival VLA and WSRT Observations of GRB 030329 Radio Afterglow", Mesler, R. A., Pihlström, Y. M., Taylor, G. B., & **Granot, J.** 2012, ApJ, **759**, 4

187. ∗ "Analytic Expressions for the Surface Brightness Profile of GRB Afterglow Images", **Granot, J.** 2008, **MNRAS Lett.**, 390, L46 – L50

188. ∗ "Stirring the Embers: High Sensitivity VLBI Observations of GRB 030329", Pihlström, Y. M., Taylor, G. B., **Granot, J.**, & Doeleman, S. 2007, ApJ, **664**, 411

189. "Critical Review of Basic Afterglow Concepts", **Granot, J.**, short review for "070228: The Next Decade of Gamma-Ray Burst Afterglows", Amsterdam, 2007 March 19-23, eds. Wijers, R.A.M.J., Kaper, L, and van Eerten, H.J. (Elsevier: Amsterdam)

190. ∗ "Implications of the Measured Image Size for the Radio Afterglow of GRB 030329", **Granot, J.**, Ramirez-Ruiz, E. & Loeb, A. 2005, ApJ, **618**, 413 – 425

191. ∗ "The Shape of Spectral Breaks in Gamma-Ray Burst Afterglows", **Granot, J.**, & Sari, R. 2002, ApJ, **568**, 820 – 829

192. ∗ "The Synchrotron Spectrum of Fast Cooling Electrons Revisited", **Granot, J.**, Piran, T., & Sari, R. 2000, **ApJ Lett.**, 534, L163 – L166

193. ∗ "Images, Light Curves and Spectra of GRB Afterglow", **Granot, J.**, Piran, T., & Sari, R. 1999, A&A, Supl. Ser., **138**, 541

194. ∗ "Synchrotron Self Absorption in GRB Afterglow", **Granot, J.**, Piran, T., & Sari, R., 1999, ApJ, **527**, 236 – 246

195. ∗ "Images and Spectra From the Interior of a Relativistic Fireball", **Granot, J.**, Piran, T., & Sari, R. 1999, ApJ, **513**, 679 – 689

196. ∗ "The Bright GRB991208 - Tight Constraints on Afterglow Models from Observations of Early-Time Radio Evolution", Galama, T. J., et al. 2000, ApJ, **541**, L45

197. "Some Recent Peculiarities of the Early Afterglow", Piran, T., Nakar, E., & **Granot, J.** 2003, in the Proceedings of the Conference "30 Years of GRB Discovery", Santa Fe, New Mexico, USA, September 8-12, 2003 (astro-ph/0312138)

198. "Theory of GRB Afterglow", Piran, T. & **Granot, J.** 2001, in "GRBs in the Afterglow Era – 2nd Workshop", ed. E. Costa, F. Frontera, & J. Hjorth (Berlin; Springer), 300

GRBs in Pulsar Wind Bubbles

199. ∗ "Observational Implications of a Plerionic Environment for Gamma-Ray Bursts", Guetta, D., & **Granot, J.** 2003, MNRAS, **340**, 115 – 138

200. ∗ "Gamma-Ray Burst Afterglows in Pulsar-Wind Bubbles", Königl, A., & **Granot, J.** 2002, ApJ, **574**, 134 – 154

201. "Gamma-Ray Bursts in Pulsar Wind Bubbles: Observational Implications", Guetta, D., & **Granot, J.** 2003, in "Gamma-Ray Bursts in the Afterglow Era - 3rd Workshop", ed. M. Feroci, F. Frontera, N. Masetti, & L. Piro (San Francisco: ASP), **312**, p. 377