

Name: Dafne Guetta

Date: 26/08/2020

## CURRICULUM VITAE

### 1. Personal Details

Permanent Home Address: Derech Aialot 5, Ganei Tikva, Israel

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### 2. Higher Education

#### A. Undergraduate and Graduate Studies

<b>Period of Study</b>	<b>Name of Institution and Department</b>	<b>Degree</b>	<b>Year of Approval of Degree</b>
1995-1998	University of Bologna and Weizmann Institute	Ph.D. in Physics	1998
1990-1994	University of Florence	B.Sc. and M.Sc. in Physics	1994

#### B. Post-Doctoral Studies

<b>Period of Study</b>	<b>Name of Institution, Department and Host</b>	<b>Degree</b>	<b>Year of Completion</b>
2003-2004	Department of Astrophysics, JILA, Boulder, Colorado, USA	Postdoctoral Fellow	2004
2002-2003	Department of Astrophysics, Hebrew University, Jerusalem, Israel	Postdoctoral Fellow, Marie Curie ITN	2003

2000-2002	Department of Astrophysics University of Florence, Italy	Lecturer position	2002
1998-2000	Department of Particle Physics, Technion, Israel	Postdoctoral Fellow	2000

### **3. Academic Ranks and Tenure in Institutes of Higher Education**

<b>Dates</b>	<b>Name of Institution and Department</b>	<b>Rank/Position</b>
3/2013-Present	ORT-Braude College, Karmiel, Israel	Associate Professor
2011-2013	ORT-Braude College, Karmiel, Israel	Senior Lecturer
2004-2011	Astrophysical Observatory of Rome, Italy	Tenure, Permanent Position

### **4. Offices in Academic Administration**

2020 Member of the Emergency COVID19 Technical Support Team on distance teaching tools

2017-Present Member of the Research Committee

2014-Present Member of the Academic Council

2018 Member of the SOC Committee of the 2018 Braude Research conference

2014-2016 Member of the Committee for academic affairs

### **5. Scholarly Positions and Activities outside the Institution**

2020 Coordinator of the Working Group on UV emission from GRBs  
of the Israeli Project ULTRASAT (PI Eli Waxman)

2005-Present Reviewer for: Nature, Science, Astrophysical Journal,  
Astronomy and Astrophysics, Astroparticle Journal, MNRAS

2017 Israeli representative of the ESF COST PHAROS

2013-2017 Representative of the Israeli Physics Society (IPS) for the ORT-Braude College

2013 Member of a Technological project to build an optical telescope as follow up of a  
gravitational wave and/or neutrino signal.

2004 – 2011 Visiting Professor, three months every year, Astrophysics Department Weizmann  
Institute, Israel

## **6. Participation in Scholarly Conferences**

### **Organization of Conferences or Sessions**

<b>Date</b>	<b>Name of Conference</b>	<b>Place of Conference</b>	<b>Subject of Conference/ Role at Conference/ Comments</b>	<b>Role</b>
2018	Braude Research conference	Hotel Hagoshrim, Israel	Braude Research conference	Scientific Organization Committee
2015	Israeli Physics Society Conference	Tel Aviv University	Israeli Physics Society Conference	Scientific Organization Committee
2014	Israeli Physics Society Conference	Ben Gurion University	Israeli Physics Society Conference	Scientific Organization Committee

## **7. Invited Lectures\ Colloquium Talks**

### **After the promotion to Associate Professor**

1. September 2018, Invited Plenary Talk on "Multimessenger Probes of High-energy Sources", International Conference on Astroparticle Physics (RICAP 2018)
2. December 2017, Invited Plenary talk on "Neutrinos from astrophysical sources in the IceCube and ARA Era", International High energy physics conference, Playa Del Carmen, Mexico
3. November 2016, Invited talk on "Neutrinos from astrophysical sources in the IceCube and ARA Era", at Italian conference on GRBs, Bergamo, Italy
4. October 2016, Invited talk on "High Energy Neutrinos from Pulsar Wind Nebulae" at the Astrophysics Department of Columbia University New York, USA
5. June 2016 Invited talk on "High Energy Neutrinos from Pulsar Wind Nebulae" at RICAP2016, Frascati, Italy

6. February 2016 Plenary Invited talk on "High Energy Neutrinos from Pulsar Wind Nebulae" Antares-KM3NET meeting, Germany
7. July 2015 Plenary Invited talk on "High Energy Neutrinos from Pulsar Wind Nebulae" Marcell Grossmann meeting, Rome
8. May 2015 Plenary Invited talk on "High Energy Neutrinos from Pulsar Wind Nebulae" IPA conference Madison
9. December 2014 Plenary invited talk on "Neutrinos from astrophysical sources in the IceCube and ARA Era", 10 years Swift, Rome, Italy
10. October 2014 Plenary invited talk on "Hidden Cosmic-Ray Accelerators as an origin of TeV-PeV Cosmic Neutrinos" at RICAP2014, Noto, Sicily, Italy
11. June 2014 Invited talk on "Gravitational Waves Sources and Detections" at High energy processes around compact objects, Florence, Italy

### **Before promotion to Associate Professor**

12. July 2013 Plenary Invited Talk on "Quantum Gravity Phenomenology with Neutrinos and high energy photons", at Loops 2013 Perimeter Institute for Theoretical Physics in Waterloo, Canada
13. April 2013 VESF School, OAR, Rome Invited Lectures on "Neutrino processes and Gravitational Wave emission: theory"
14. February 2013 Invited Talk on "High Energy Neutrinos from Astrophysical sources", at the ANTARES collaboration conference in Bologna
15. November 2012 Plenary talk invited review on "Gamma-Ray Bursts in the Fermi Era", at the Fourth International Fermi Symposium, Montrey, USA.
16. September 2012 Invited Review on "Quantum Gravity effects from Gamma-Ray Bursts" at the National Conference on Gamma-Ray Bursts, Napoli, Italy.
17. October 2010 International Conference on "General Relativity and gravitational waves", Scuola Normale di Pisa.
18. September 2010 International Conference on "Gamma-ray astrophysics in the Multi-messenger context", Trieste, Italy.
19. June 2010 International Conference on "From eV to TeV - All GRBs' colours", at Cefalu', Italy.
20. April 2009 International Conference on "The physics of neutron stars", Rome, Italy.
21. June 2009 Workshop on "Gravitational Waves and Neutrino", Paris.
22. August 2009 Workshop on "Gamma Ray Bursts" ICRANET, Pescara.
23. March 2007 International Conference on "The Next Decade of GRB Afterglows", Amsterdam, Holland.
24. June 2006 Workshop on "GRBs in the Afterglow Era", San Servolo, Italy.
25. September 2003 International Conference on "Microquasars", Cargese, France.
26. September 2002 Workshop on "neutrino Astrophysics", Les Houches, France.
27. March 2002 International Conference "XXIst Rencontres De Moriond", Les Arcs, France.

## **8. Research Grants**

### **a. Grants Awarded**

<b>Role in Research</b>	<b>Co-Researchers</b>	<b>Topic</b>	<b>Funded by/ Amount</b>	<b>Year</b>
Collaborator	Nanda Rea, Reem Sari, Davide Lazzati	Multi-messenger physics and astrophysics of neutron star"	ESF COST Action PHAROS  100000 Euro	2017
Principal Investigator	Eli Waxman, Francis Halzen, Hagar Landsman, Amy Connolly, David Besson	High-Energy Neutrinos from Astrophysical sources in the era of Kilometer-Scale Neutrino Detector	BSF  170000\$	2013-2017
Principal Investigator	Antonio Capone	Italian-Israeli Collaboration on high energy astrophysics	Italian Embassy  15000 Euro	2013
Principal Investigator	Fabrizio Fiore	Re-thinking Gamma Ray Bursts	Cofin-Italy	2009-2011
Co-PI	Fabrizio Fiore	Exploring the hard X-ray	ASI-Micela	2009-2011
Co-PI	Fabrizio Di Castro	Missing barions in the Universe	Cofin-Italy	2008-2009

**b. Submission of Research Proposals – Not Funded**

<b>Role in Research</b>	<b>Co-Researchers</b>	<b>Topic</b>	<b>Funded by</b>	<b>Year</b>	<b>Score</b>
Principal Investigator	Imre Bartos, Franzis Halzen, Szabolcs Malka	Multimessenger Probes of Hidden High-energy Sources	BSF	2018	Very Good

**9. Scholarships, Awards and Prizes**

2019 Braude Excellence Award for my activity at Braude (General: teaching, research, contribution to Braude)

2017 Braude Excellence Award for research activity

2014 Braude Excellence Award for research activity

2010 Iori prize in Physics from the Vigevani foundation.

1997 Special prize of the Italian Physics Society (SIF) for research in theoretical physics.

1996 Prize from the Israeli ministry of foreign affairs for research at Weizmann.

## **10. Teaching**

### **a. Courses Taught in Recent Years**

<b>Year</b>	<b>Name of Course</b>	<b>Type of Course</b>	<b>Degree</b>	<b>Number of Students</b>
2011-2020	Mechanics for Biotechnology Engineering	Lecture	Undergraduate	40
2011-2020	Mechanics for Computer Science Engineering	Lecture	Undergraduate	60
2011-2020	Mechanics for Mechanical Engineering	Lecture	Undergraduate	60
2011-2020	Mechanics for Engineering and Management	Lecture	Undergraduate	80
2000-2003	High Energy Astrophysics at the University of Florence	Lecture	Graduate	20

## **11. Research Interests**

- Neutron star physics high-energy processes from neutron star merging, gravitational waves and neutrinos;
- Use of neutrino data to constrain astrophysical source;
- Upper limits on the high energy emission from GRBs, from the LAT data (First work on the subject used by the LAT collaboration). Neutrino Astrophysics, Gamma Ray Burst models. Quantum gravity effects in Gamma Ray Bursts and their use in cosmology;
- Gravitational waves from astrophysical sources. Interpreting the high energy emission in short and long Gamma Ray Bursts;
- The nature of astrophysical jets and their structure;
- The Rate of short and long Gamma Ray Bursts, their use in cosmology;
- The Luminosity function and redshift distributions of Gamma Ray Burst
- The rate of Supernovae Type 1c;
- Neutrino from GRBs detected by BATSE;

- The internal shock model of Gamma Ray Bursts a complete analysis using a Monte Carlo code;
- Neutrino emission from Gamma Ray Bursts and Microquasars.

## **11. Summary of my Activities and Future Plans**

### **Research:**

I am collaborating on several project with different groups. With the group of Rome (university La Sapienza) led by Prof. Antonio Capone (Principal Investigator of the neutrino telescope KM3Net) I am leading the project on the estimate of neutrino flux from choked Gamma Ray Bursts. We have already obtained the numerical results from the simulation and we are writing the paper to be submitted to astroparticle physics. With the group of the University of Mexico led by Prof. Fabio De Colle we are working on a project on analysis of optical light curves of Gamma-Ray Bursts. We have already written a paper and we are waiting for comments from other collaborators. With the University of Ben Gurion, Prof. David Eichler, we have submitted a paper to Astrophysical Journal on the median Luminosity Function of Gamma Ray Bursts. We are now working on revising the paper after the comments of the referee. With the group of Milano led by Dr. Andrea Melandri, we are working on the very high energy emission (TeV) from Gamma Ray Bursts. We are collecting our results. Finally I am the coordinator of the Gamma Ray Bursts working group of the ULTRASAT satellite. This is an Israeli satellite led by the Principal Investigator Prof. Eli Waxman, in particular we are looking for possible UV emission from Gamma Ray Bursts that can be detected by this satellite.

### **Teaching:**

I am preparing a new course on Modern Physics for Mechanical Engineering in English for the ORT-Braude International Relations Office (IRO). The aim of the course is to deepen the students knowledge of modern physics and milestones in its development, recognition of technological applications of twentieth-century physics. The Subjects of the course are: Special Relativity Theory: Michaelson-Morley Experiment, Principles of Special Relativity, Lorentz Transformation, Doppler Effect. Relativistic dynamics. Introduction to Quantum Theory: Quantum Hypothesis, Distributions. The photoelectric effect, the Compton effect. X Radiation, Production and Uses, Bragg Scattering. The hydrogen spectrum, a Bohr model for the atomic structure. Quantum theory: The wavy properties of matter, the principle of uncertainty. History of Quantum Theory: The Periodic Table. Lasers: Einstein coefficients. Radioactivity: Types of radiation, half-life.

## **12. Publications**

### **Refereed Papers in Professional Journals**

**Published Papers (those published after the promotion to Associate Professor are marked with \*)**

### **Refereed Papers**

1. **\*Guetta, D.,** Rahin, R., Bartos, I. 2020 Constraining the Fraction of Core-Collapse Supernovae Harboring Choked Jets with High-energy Neutrinos, Monthly Notices of the Royal Astronomical Society, MNRAS 492, 843. **Rating: Q1**

2. \*Della Valle, M.; **Guetta, D.** et al. 2018 GW170817: implications for the local kilonova rate and for surveys from ground-based facilities, Monthly Notices of the Royal Astronomical Society, Volume 481, Issue 4, p.4355-4360. **Rating: Q1**
3. \*Granot, J.; **Guetta, D.**; 2018, Gill, R., Off-Axis Emission of Short GRB Jets from Double Neutron Star Mergers and GRB 170817A, Monthly Notices of the Royal Astronomical Society, Volume 481, Issue 2, p.1597-1608 **Rating: Q1**
4. \*Granot, J.; **Guetta, D.**; Gill, R., 2017, Lessons from the Short GRB 170817A: The First Gravitational-wave Detection of a Binary Neutron Star Merger, ApJ 850, 24 **Rating: Q1**
5. \*Lamastra, A.; Fiore, F.; **Guetta, D.**; 2017, Extragalactic gamma-ray background from AGN winds and star-forming galaxies in cosmological galaxy-formation models, A&A 607,12 **Rating: Q1**
6. \*Di Palma, I.; **Guetta, D.**; Amato, E., 2017, Revised predictions of neutrino fluxes from Pulsar Wind Nebulae, ApJ 836, 159 **Rating: Q1**
7. \*ARA collaboration and **Guetta, D.**, 2017, Constraints on the ultra-high-energy neutrino flux from Gamma-Ray bursts from a prototype station of the Askaryan radio array, Astroparticle Physics, Volume 88, p. 7-16. **Rating: Q2**
8. \*Righi, C.; Tavecchio, F.; **Guetta, D.**, 2017, High-energy emitting BL Lacs and high-energy neutrinos - Prospects for the direct association with IceCube and KM3NeT, A&A, Volume 598, 8 pp. **Rating: Q1**
9. \*Lamastra, A.; Fiore, F.; **Guetta, D.**; 2016, Galactic outflow driven by the active nucleus and the origin of the gamma-ray emission in NGC 1068 A&A, 596, p11 **Rating: Q1**
10. \*Wygoda, N.; **Guetta, D.**; Mandich, M. A.; Waxman, E., 2016, The Energy Budget of GRBs Based on a Large Sample of Prompt and Afterglow Observations, ApJ 824, 9. **Rating: Q1**
11. \*Yacobi, L.; **Guetta, D.**; Behar, E., 2016, Implication of the Non-detection of GZK Neutrinos, ApJ 823, 5 **Rating: Q1**
12. \*Murase, Kohta; **Guetta, Dafne**; Ahlers, Markus 2016, Hidden Cosmic-Ray Accelerators as an Origin of TeV-PeV Cosmic Neutrinos, Physical Review Letters, Volume 116, Issue 7 **Rating: Q1**
13. \*Nir, G.; **Guetta, D.**; Landsman, H.; Behar, E. 2016, Ultra High Energy Neutrinos from Gamma-Ray Burst Afterglows Using the Swift-UVOT Data ApJ 817, 142 **Rating: Q1**
14. \*Allison, P. et al. 2015, First constraints on the ultra-high energy neutrino flux from a prototype station of the Askaryan Radio Array, Astroparticle Physics, Volume 70, p. 62-80 **Rating: Q2**
15. \***Guetta D.** , 2015, Neutrinos from Gamma Ray Bursts in the IceCube and ARA Journal
16. of High Energy Astrophysics, Volume 7, p. 90-94. **Rating: Q2**
17. \*Amelino-Camelia G. **Guetta D.**, & Piran T., 2015, ICECUBE Neutrinos and Lorentz Invariance Violation, APJ 806, 269, 6 **Rating: Q1**
18. \*Amati, L. et al. 2015, Probing the emission physics and weak/soft population of Gamma-Ray Bursts with LOFT, White Paper in Support of the Mission Concept of the Large Observatory for X-ray Timing.
19. \*Tavecchio, F.; Ghisellini, G. & **Guetta, D.** 2014, Structured Jets in BL Lac Objects: Efficient PeV Neutrino Factories? The Astrophysical Journal Letters, 793, L18, **Rating: Q1**
20. \*Yacobi, L.; **Guetta, D.** & Behar, E. 2014, Constraints on the Hadronic Content of Gamma Ray Bursts, The Astrophysical Journal, 793, 48 **Rating: Q1**
21. \*Amelino-Camelia G., Fiore F., **Guetta D.** & Puccetti S. 2014, Quantum-spacetime scenarios and soft spectral lags of the remarkable GRB130427A, Advances in High Energy Physics. **Rating: Q4**
22. \*Mahajne S., **Guetta D.** , Lulinsky S., Krylov S. and Linzon Y. 2014, Liquid mass sensing using resonating microplates under harsh drop and spray, Physics Research International 2014
23. Amelino-Camelia G. **Guetta D.**, & Piran T. Possible relevance of quantum spacetime for neutrino-telescope data analyses accepted to ApJ, astro-ph/1303.1826A
24. Castignani G., **Guetta D.**, Pian E., Amati L., Puccetti S. & Dichiara S., 2014 Testing the delay of MeV-GeV emission with respect to soft-gamma rays in Fermi-LAT GRBs, Astronomy & Astrophysics, Volume 565, 9 **Rating: Q1**
25. Ando et al. "Multi-messenger astronomy with gravitational waves", 2013, Reviews of Modern Physics, vol. 85, Issue 4, pp. 1401-1420 **Rating: Q1**



26. Baerwald P. and **Guetta D.** “Estimation of the neutrino flux and resulting constraints on hadronic emission models for Cyg X-3 using AGILE data” 2013 The Astrophysical Journal, Volume 773, 6 **Rating: Q1**
27. Coward D., Howell E., Branchesi M., Strata G., Guetta D., Gendre B., Macpherson D. “The Swift Gamma-Ray Burst redshift distribution: selection biases and optical brightness evolution at high-z?”, Monthly Notices of the Royal Astronomical Society, Volume 432, pp 2141-2149 **Rating: Q1**
28. Coward, D. et al. 2012, “The Swift Short GRBs rate density”, Monthly Notices of the Royal Astronomical Society, Volume 425, pp. 2668-2673 **Rating: Q1**
29. Beniamini P., **Guetta D.**, Nakar E. & Piran, T. 2011, “Limits on the GeV emission from gamma-ray bursts”, Monthly Notices of the Royal Astronomical Society, Volume 416, pp. 3089-3097 **Rating: Q1**
30. Dall’Osso S., Stratta G., **Guetta D.**, Covino S., De Cesare G. & Stella L. 2011, “GRBs afterglows with energy injection from a spinning down neutron star”, Astronomy and Astrophysics, Volume 526, id.A121, pp. 7 **Rating: Q1**
31. **Guetta D.**, Pian E. & Waxman E. 2011, “FERMI constraints on the high energy, ~1 GeV, emission of long gamma ray bursts”, Astronomy and Astrophysics, Volume 525, id.A53, pp. 12 **Rating: Q1**
32. Eichler D., **Guetta D.** & Pohl, M. 2010, “The High Energy Budget Allocations in Shocks and Gamma Ray Bursts”, The Astrophysical Journal, Volume 722, pp. 543-549 **Rating: Q1**
33. Corsi A., **Guetta D.** & Piro L. 2010, “High-energy Emission Components in the Short GRB 090510” The Astrophysical Journal, Volume 720, pp. 1008-1015 **Rating: Q1**
34. **Guetta D.** & Eichler D. 2010, “Wide Angle X-ray Sky Monitoring for Corroborating Non-Electromagnetic Cosmic Transients”, The Astrophysical Journal, Volume 712, pp. 392-396 **Rating: Q1**
35. Corsi A., **Guetta D.** & Piro L. 2010, “GeV emission from short Gamma-Ray Bursts: the case of GRB 081024B”, Astronomy and Astrophysics, Volume 524, id.A92, pp. 8 **Rating: Q1**
36. Salvaterra R. et al. 2009, “GRB090423 at a redshift of  $z \sim 8.1$ ”, **Nature**, Volume 461, Issue 7268, pp. 1258 **Rating: Q1**
37. D’Elia V. et al. 2009, “The Prompt, High-Resolution Spectroscopic View of the “Naked-Eye” GRB080319” The Astrophysical Journal, Volume 694, pp. 332-338 **Rating: Q1**
38. Stratta G., **Guetta D.**, D’Elia V., Perri M., Covino S. & Stella, L. 2009, “Evidence for an anticorrelation between the duration of the shallow decay phase of GRB X-ray afterglows and  $z$ ” Astronomy and Astrophysics, Volume 494, pp.L9-L12 **Rating: Q1**
39. Eichler D., **Guetta D.** & Manis H. 2009, “A Universal Central Engine Hypothesis for Short and Long Gamma-Ray Bursts” The Astrophysical Journal Letters, Volume 690, pp. L61-L64 **Rating: Q1**
40. **Guetta D.** & Stella L. 2009, “Short  $\gamma$ -ray bursts and gravitational waves from dynamically formed merging binaries” Astronomy and Astrophysics, Volume 498, pp.329-333 **Rating: Q1**
41. Piranomonte S. et al. 2008, “The short GRB 070707 afterglow and its very faint host galaxy”, Astronomy and Astrophysics, Volume 491, pp.183-188 **Rating: Q1**
42. Covino S. et al. 2008, “The Afterglow Onset for GRB 060418 and GRB 060607A” Chinese Journal of Astronomy & Astrophysics Supplement, Vol. 8, p. 356-360 **Rating: Q1**
43. Covino S. et al. 2008, “The complex light curve of the afterglow of GRB071010A” Monthly Notices of the Royal Astronomical Society, Volume 388, pp. 347-356 **Rating: Q1**
44. Coward D. M., **Guetta D.** Burman R. R. & Imerito A. 2008, “Where are the missing gamma-ray burst redshifts?” Monthly Notices of the Royal Astronomical Society, Volume 386, pp. 111-116 **Rating: Q1**
45. Galli A. & **Guetta D.** 2008, “Gamma-ray burst high energy emission from internal shocks” Astronomy and Astrophysics, Volume 480, pp.5-13 **Rating: Q1**
46. Perri M., **Guetta D.** et al. 2007, “The exceptionally extended flaring activity in the X-ray afterglow GRB050730”, Astronomy and Astrophysics, Volume 471, pp.83-92 **Rating: Q1**
47. Fiore F., **Guetta D.**, Piranomonte S., D’Elia V. & Antonelli L. A. 2007, “Selection effects shaping the gamma ray burst redshift distributions”, Astronomy and Astrophysics, Volume 470, pp.515-522 **Rating: Q1**
48. **Guetta D.** & Piran T. 2007, “Do long duration gamma ray bursts follow star formation?” Journal of Cosmology and Astroparticle Physics, Issue 07, id. 003 **Rating: Q1**

49. Molinari E. et al. 2007, “REM observations of GRB 060418 and GRB 060607A” *Astronomy and Astrophysics*, Volume 469, pp.L13-L16 **Rating: Q1**
50. Antonelli A. et al. 2007, “The puzzling afterglow of GRB 050721”, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, vol. 365, issue 1854, pp. 1235
51. D’Elia et al. 2007, “UVES/VLT high resolution spectroscopy of GRB 050730 afterglow: probing the features of the GRB environment”, *Astronomy and Astrophysics*, Volume 467, pp.629-639 **Rating: Q1**
52. **Guetta D.** & Della Valle M. 2007, “ On the Rates of Gamma-Ray Bursts and Type Ib/c Supernovae”, *The Astrophysical Journal*, Volume 657, pp. L73-L76 **Rating: Q1**
53. **Guetta D.** et al., 2007, “The variable X-ray light curve of GRB 050713A: the case of refreshed shocks”, *Astronomy and Astrophysics*, Volume 461, pp.95-101 **Rating: Q1**
54. Perri M., **Guetta D.** et al. 2006, “The flaring afterglow of GRB 050730” *Il Nuovo Cimento B*, vol. 121, Issue 12, p.1557-1559 **Rating: Q1**
55. Fiore F., **Guetta D.**, Piranomonte S., D’Elia V. & Antonelli L. A. 2006 “Can we use GRB to probe high redshift star formation?” *Il Nuovo Cimento B*, vol. 121, Issue 10, p.1395-1402 **Rating: Q1**
56. **Guetta D.**, D’Elia V., Fiore F.,Conciatore M. L., Antonelli A. & Stella L. 2006, “Analysis of X-ray flares in GRBs”, *Il Nuovo Cimento B*, vol. 121, Issue 10, p.1317-1325 **Rating: Q1**
57. **Guetta D.** 2006, “Short GRBs: Rates and luminosity function implications” *Il Nuovo Cimento B*, vol. 121, Issue 10, p.1061-1066 **Rating: Q1**
58. Romano P. et al. 2006, “Panchromatic study of GRB 060124: from precursor to afterglow”, *Astronomy and Astrophysics*, Volume 456, pp.917-927 **Rating: Q1**
59. Antonelli A. et al. 2006, “The multiwavelength afterglow of GRB 050721” *Astronomy and Astrophysics*, Volume 456, pp.509-515 **Rating: Q1**
60. **Guetta D.** & Piran T. 2006 “The BATSE-Swift luminosity and redshift distributions of short-duration GRBs” *Astronomy and Astrophysics*, Volume 453, pp.823-828 **Rating: Q1**
61. Hopman C., **Guetta D.**, Waxman E. & Portegies Zwart S. 2006, “The Redshift Distribution of Short GRBs from Dynamically Formed NS Binaries”, *The Astrophysical Journal*, Volume 643, pp. L91-L94 **Rating: Q1**
62. Piran T., **Guetta D.** & Rodriguez-Martinez M. 2006, “Gamma-Ray Bursts and New Physics”, *Progress of Theoretical Physics Supplement*, No. 163, pp. 23-37
63. Covino S. et al. 2006, “Optical emission from GRB 050709: a short/hard GRB in a star-forming galaxy”, *Astronomy and Astrophysics*, Volume 447, pp.L5-L8 **Rating: Q1**
64. Tagliaferri G. et al. 2005, “GRB 050904 at redshift 6.3: observations of the oldest cosmic explosion after the Big Bang”, *Astronomy and Astrophysics*, Volume 443, pp.L1-L5 **Rating: Q1**
65. **Guetta D.** & Piran T. 2005, “The luminosity and redshift distributions of short-duration GRBs”, *Astronomy and Astrophysics*, Volume 435, pp.421-426 **Rating: Q1**
66. **Guetta D.**, Granot J. & Begelman M. C. 2005, “Constraining the Structure of GRB Jets through the logN-logS Distribution”, *The Astrophysical Journal*, Volume 622, pp. 482-491 **Rating: Q1**
67. **Guetta D.**, Piran T. & Waxman E. 2005, “The Luminosity and Angular Distributions of Long-Duration Gamma-Ray Bursts”, *The Astrophysical Journal*, Volume 619, pp. 412-419 **Rating: Q1**
68. **Guetta D.**, Perna R., Stella L. & Vietri M. 2004, “Are All Gamma-Ray Bursts Like GRB 980425, GRB 030329, and GRB 031203?”, *The Astrophysical Journal*, Volume 615, pp. L73-L76 **Rating: Q1**
69. **Guetta D.**, Ghisellini G.,Lazzati D. & Celotti A. 2004, “Internal shocks and the blazar sequence. Low and intermediate power BL Lac objects”, *Astronomy and Astrophysics*, 421, 877-886 **Rating: Q1**
70. Nakar E., Granot J. & **Guetta D.** 2006, “Testing the Predictions of the Universal Structured Gamma-Ray Burst Jet Model”, *The Astrophysical Journal*, Volume 606, pp. L37-L40 **Rating: Q1**
71. **Guetta D.**, Hooper D., Alvarez-Muniz J. & Halzen F. 2004, “Neutrinos from individual gamma-ray bursts in the BATSE catalog”, *Astroparticle Physics*, Volume 20, p. 429-455 **Rating: Q2**
72. Granot J. & **Guetta D.** 2003, “Explaining the High-Energy Spectral Component in GRB 941017”, *The Astrophysical Journal*, Volume 598, pp. L11-L14 **Rating: Q1**
73. Vietri M., De Marco D. & **Guetta D.** 2003, “On the Generation of Ultra-High-Energy Cosmic Rays in Gamma-Ray Bursts”, *The Astrophysical Journal*, Volume 592, Issue 1, pp. 378-389 **Rating: Q1**

74. **Guetta D.** & Amato E. 2003, “Neutrino flux predictions for galactic plerions”, *Astroparticle Physics*, Volume 19, Issue 3, p. 403-407 **Rating: Q2**
75. **Guetta D.** & Granot J. 2003, “Neutrinos of Energy  $\sim 10^{16}$  eV from Gamma-Ray Bursts in Pulsar Wind Bubbles”, *Physical Review Letters*, Volume 90, Issue 20, id. 201103 **Rating: Q1**
76. Granot J. & **Guetta D.** 2003, “Neutrinos from Pulsar Wind Bubbles as Precursors to Gamma-Ray Bursts” *Physical Review Letters*, Volume 90, Issue 19, id. 191102 **Rating: Q1**
77. Amato E., **Guetta D.** & Blasi P. 2003, “Signatures of high energy protons in pulsar winds”, *Astronomy and Astrophysics*, v.402, p.827-836 **Rating: Q1**
78. **Guetta D.** & Granot J. 2003, “Observational implications of a plerionic environment for gamma-ray bursts”, *Monthly Notice of the Royal Astronomical Society*, Volume 340, pp. 115-138 **Rating: Q1**
79. **Guetta D.** & Granot J. 2003, “High-Energy Emission from the Prompt Gamma-Ray Burst”, *The Astrophysical Journal*, Volume 585, pp. 885-889 **Rating: Q1**
80. Inoue S., **Guetta D.** & Pacini F. 2003, “Precursor Plerionic Activity and High-Energy Gamma-Ray Emission in the Supranova Model of GRBs”, *The Astrophysical Journal*, 583, pp. 379-390 **Rating: Q1**
81. Distefano C., **Guetta D.**, Waxman E., & Levinson A. 2002, “Neutrino Flux Predictions for Known Galactic Microquasars”, *The Astrophysical Journal*, Volume 575, pp. 378-383 **Rating: Q1**
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