

Curriculum Vitae, Updated 11/01/2017
Brian David Metzger

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ACADEMIC POSITIONS

07/17– Associate Professor of Physics, Columbia University
01/13–07/17 Assistant Professor of Physics, Columbia University
09/12–12/12 Lyman Spitzer Jr. Fellow, Princeton University
2009–12 NASA Einstein Fellow, Princeton University
05/09–09/09 Postdoctoral Researcher, Department of Astronomy, UC Berkeley

EDUCATION

08/03–05/09 University of California at Berkeley
M.A. & Ph.D. in Physics (Thesis Adviser: Prof. Eliot Quataert)
Dissertation: “Theoretical Models of Gamma-Ray Burst Central Engines”
08/99–05/03 The University of Iowa
B.S. in Physics, Astronomy, & Mathematics (Highest Distinction)

RESEARCH INTERESTS:

My research is in theoretical high energy astrophysics, on topics including gamma-ray bursts, novae, supernovae, accretion processes, shocks, compact objects, nucleosynthesis (astrophysical origin of the elements), and the electromagnetic counterparts of gravitational wave sources. My research utilizes both analytic calculations and numerical simulations, with the latter often pursued in collaboration with students and postdocs.

FELLOWSHIPS and AWARDS

04/19 Charles and Thomas Lauritsen Honorary Lecture, Caltech
2016 Research Science Corporation Scialog Fellow
2014–16 Alfred P. Sloan Research Fellowship
2009–12 NASA Einstein Fellowship (*Astrophysical Sciences, Princeton*)
04/12 Rand Honorary Public Lecture (~ 200 attendees; *Burlington, IA*)
11/09 AAS High Energy Astrophysics Division Dissertation Prize
09/09 NASA Hubble Fellowship
09/09 Lyman Spitzer Jr. Fellowship (*Astrophysical Sciences, Princeton*)
05/09 Mary Elizabeth Uhl Prize (*Astronomy Department, UC Berkeley*)
2005–08 NASA Graduate Student Research Fellowship
05/03 James A. Van Allen Award (*Department of Physics, U Iowa*)
05/03 Callen Prize for Highest Promise in Graduate Research (*U Iowa*)
05/03 Rhodes/Dunlap Collegiate Scholarship (*U Iowa*)
05/02 William R. Savage Award (*Department of Physics, U Iowa*)
05/02 Phi Beta Kappa Honor Society

SELECT PROFESSIONAL SERVICE and PUBLIC OUTREACH

Workshop/Conference Co-Organizer:

- 05/19 “The New Era of GW Physics and Astrophysics,” KITP Santa Barbara
- 10/17 “Workshop on Binary Neutron Star Merger Discovery”, Columbia University
- 09/17 “EM Signatures of R-process Nucleosynthesis in NS Mergers,” INT Washington
- 05/17 “Common Envelope Workshop”, Simons Flatiron NYC
- 06/17 “Connecting FRIB with the Cosmos”, ICNT Michigan State
- 06/16 “Shocks & Particle Acceleration in Novae and SNe”, Simons Flatiron NYC
- 05/17 “LIGO-LSST Workshop”, Columbia University
- 03/14 “Signals and Structure of Neutron Stars, from Birth to Death”, GGI Florence
- 05/12 “Connecting the GW & EM Skies in the Era of ALIGO”, PCTS Princeton

Reviewer of Research Grant Applications and Observing Time:

- 01/17 Columbia University RISE Program
- 2010,16,17 NASA Astrophysics Theory Proposal
- 04/16 Cy-Tera and Eastern Mediterranean High Power Computing
- 2015 NASA Chandra Guest Investigator Program
- 01/15 NSF Theoretical Nuclear Physics
- 2014 NASA Postdoctoral Program Fellowship
- 2013– HST Director’s Discretionary Time Proposal
- 2012 NSF Astrophysics Theory
- 01/12 NESSF Graduate Student Fellowship
- 2011 NASA *Fermi* Guest Investigator Program
- 2014– Telescope Time, e.g. *Hubble Space Telescope*, *Gemini Observatory*

Guest Lecturer:

- 07/15 Caltech Gravitational Wave Astrophysics Summer School
- 03/14 Graduate Student Lectures on Gamma-Ray Bursts, GGI Workshop
- 06/12 Princeton Summer REU Program

Journal Article Reviewer:

- Nature*, *The Astrophysical Journal*, *Nature Astronomy*, *ApJ Letters*, *PRL*
- New Astronomy*, *Monthly Notices of the Royal Astronomical Society*,
Astrophysics & Space Science, *Space Science Reviews*
- 2014–16 Member of “Time Domain” working group, Next Generation VLA
- 2010– Public Lectures, Southeast Iowa Astronomy Club

ADVISING EXPERIENCE

- Undergraduates: Justin Ripley, Columbia (01/13–01/14; 1 publication)
Aaron Kennon, Columbia (03/15–09/17)
Charles Zivancev, Columbia (06/15–06/15; 1 publication)
Miguel Martinez, Columbia (09/17–)
- Graduate Students: Siva Darbha, UC Berkeley (01/09–05/10; 2 publications)
Konstantin Bochkarev, Princeton (06/11–01/12; 1 publication)
Andrey Vlasov, Columbia (05/13–; 4 publications)
Aleksy Gerenezov, Columbia (09/13–; 4 publications)
Ben Margalit, Columbia (11/14–; 7 publications)
Dhruv Desai, Columbia (04/16–)
Thomas Finzell, Michigan State (10/14–2/15; 4 publication)
Andrea Derdzinski, Columbia (09/15–; 1 publication)
Jonas Lippuner, Caltech (05/16–; 2 publications)
- Postdoctoral: Dr. Nicholas Stone (09/13–), now NASA Einstein Fellow
Dr. Daniel Siegel (11/15–), now NASA Einstein Fellow
Dr. Jennifer Barnes (09/17–), NASA Einstein Fellow
Dr. Elad Steinberg (09/17–)

DEPARTMENTAL SERVICE

- Committee Assignments, Columbia Department of Physics**
- 2017 Colloquium (2017)
2017 Graduate (2017)
2016 Qualifying Examination
2014,15,17 Graduate Admissions
- Representative, Columbia Department of Physics**
- 03/15 Graduate Student Open House, Astrophysics Representative
10/14 Grad School Applications Panel Session for Physics Majors
2014,17 Physics Orientation, Astrophysics Representative
2014– **Thesis Defense Committee:** Rachel Carr, Melania Nynka
David Kaleko (Columbia), Gilad Svirski (Tel Aviv University)
Daniel Siegel (Bonn), Jonas Lippuner (Caltech)
2013– Co-Organizer (w/ A. Beloborodov), High Energy Astrophysics Seminar

TEACHING EXPERIENCE

- W3008: Electricity, Magnetism & Optics, 3 semesters (Sp 13, Sp 14, Sp 15)
- W3072: Senior Seminar, 1 semester (Sp 15)
- W3019: Mathematical Methods of Physics, 3 semesters (Fa 15, Fa 16, Fa 17)
- W1402: Intro to Electricity, Magnetism & Optics, 2 semesters (Sp 16, Sp 17)

AWARDS and GRANTS as PI

16. “The Role of Shocks in the Appearance and Aftermath of Stellar Mergers and Type II_n Supernovae”, HST Guest Investigator Program, 10/01/17–09/30/18. **Award:** \$80.9K.
15. “Dynamics and Rates of Tidal Disruption Events”, NASA Astrophysics Theory Research Program, 09/01/17–08/31/20. **Award:** \$370.4K.
14. “Enhanced rates of tidal disruptions in E+A galaxies: resolving the central dynamics of post-starburst galactic nuclei with HST observations”, HST Guest Investigator Program, 03/01/17–02/29/18. **Award:** \$17.7K.
13. “Particle Acceleration and Non-Thermal Emission in Gamma-Ray Novae”, NASA Fermi Guest Investigator Program, 10/01/16–09/30/17. **Award:** \$45K.
12. “Testing the Magnetar Model for Superluminous Supernovae with Swift”, Swift Guest Investigator Program (NNX16AN77G), 09/01/16–08/31/17. **Award:** \$42K.
11. “Signatures of Shocks and Particle Acceleration in Novae”, NSF Astrophysics Theory (AST-1615084), 07/01/16–06/30/19. **Award:** \$342.7K.
10. “Bringing Novae into the 21st Century,” Research Corporation for Scientific Advancement (PG007637), 01/01/16–12/31/16. **Award:** \$33.3K.
9. “Probing Particle Acceleration at Non-Relativistic Shocks with Gamma-Ray Novae”, NASA Fermi Guest Investigator Program (NNX15AU77G), 09/01/15–08/31/16. **Award:** \$60K.
8. “Nuclear Burning in Collapsar Accretion Disks and the Origin of Gamma-Ray Burst Supernovae,” Swift Guest Researcher Program (NNX15AR47G), 10/01/15–09/30/16. **Award:** \$42.9K.
7. “Accretion Disk Outflows from Compact Object Mergers”, NASA Astrophysics Theory Research Program, 10/01/15–09/30/18. **Award:** \$436.7K.
6. “Gamma-Ray Novae as Probes of Shock Acceleration”, NASA Fermi Guest Investigator Program (NNX14AQ68G), 09/01/14–08/31/15. **Award:** \$99K.
5. “Testing the Millisecond Magnetar Model for GRBs and SLSNe” NSF Astrophysics Theory (AST-1410950), 07/15/14–06/30/17. **Award:** \$381.2K.
4. Alfred P. Sloan Research Fellowship, 09/01/14-08/31/16. **Award:** \$50K.
Custodial PI for Columbia Postdoctoral Fellows:
3. “The transient electromagnetic sky from binary neutron star mergers”, NASA Einstein Fellowship of Daniel Siegel (SAO PF6-170159), 08/01/16–07/31/19. **Award:** \$340K.

2. “Stellar Dynamics Near Supermassive Black Holes”, NASA Einstein Fellowship of Nicholas Stone (SAO PF5-160145), 09/01/15–08/31/18. **Award:** \$340K.
1. “Transient Modeling for the Multi-Messenger Era”, NASA Einstein Fellowship of Jennifer Barnes (SAO PF7-180162), 09/01/15–08/31/18. **Award:** \$340K.

PEER-REVIEWED PUBLICATIONS (34 1st author, \approx 5800 citations, h-index: 42)

117. A. Villar, J. Guillochon, E. Berger, **B. D. Metzger**, et al., 2018, “The Complete Ultraviolet, Optical, and Near-Infrared Light Curves of the Kilonova Associated with the Binary Neutron Star Merger GW170817: Homogenized Data Set, Analytic Models, and Physical Implications”, ApJ submitted
116. P. Cowperthwaite, ..., **B. D. Metzger**, et al., “An Empirical Study of Contamination in Deep, Rapid, and Wide-Field Optical Follow-Up of Gravitational Wave Events”, ApJ submitted
115. N. C. Stone, A. Generozov, E. Vasiliev, **B. D. Metzger**, 2017, “The Delay Time Distribution of Tidal Disruption Flares”, MNRAS submitted
114. T. Finzell, L. Chomiuk, **B. D. Metzger**, et al., 2017, “A Comprehensive Observational Analysis of V1324 Sco, the Most Gamma-Ray Luminous Classical Nova to Date”, ApJ submitted
113. Margutti, R., Chornock, R., **B. D. Metzger**, et al., 2017 “Results from a systematic survey of X-ray emission from Hydrogen-poor Superluminous Supernovae”, ApJ submitted, arXiv:1704.05865
112. I. Vurm, **B. D. Metzger**, 2017, “High-energy emission from non-relativistic radiative shocks: application to gamma-ray novae”, ApJ submitted
111. B. McKernan, K. Ford, J. Bellovary, ..., **B. D. Metzger**, et al. 2017, “On stellar-mass black hole mergers in AGN disks detectable with LIGO”, ApJ submitted, arXiv:1702.07818
110. B. Margalit, **B. D. Metzger** et al., 2017, “The GRB-SLSN Connection: mis-aligned magnetars, weak jet emergence, and observational signatures”, MNRAS submitted, arXiv:1705.01103
109. B. Margalit, **B. D. Metzger**, 2017, “Constraining the Maximum Mass of Neutron Stars From Multi-Messenger Observations of GW170817”, ApJL submitted
- 2017**
108. I. Bartos, Z. Haiman, Z. Marka, **B. D. Metzger**, N. C. Stone, S. Marka, “Gravitational-Wave Localization Alone Probes AGN Origin of Stellar-Mass Black Hole Mergers”, 2017, accepted Nature Astronomy
107. G. Brown, ..., **B. D. Metzger**, “Late-time observations of the relativistic tidal disruption flare candidate Swift J1112.2-8238”, 2017, MNRAS, 472, 4496
106. P. Beniamini, D. Giannios, **B. D. Metzger**, “Constraints on millisecond magnetars as the engines of prompt emission in gamma-ray bursts”, 2017, MNRAS, 472, 3058
105. **B. D. Metzger**, N. C. Stone, “Periodic accretion-powered flares from colliding EMRIs as TDE Imposters”, 2017, ApJ, 844, 75
104. D. Kasen, **B. D. Metzger**, J. Barnes, E. Quataert, E. Ramirez-Ruiz, “Origin of the heavy elements in binary neutron-star mergers from a gravitational wave event”, 2017, accepted Nature

103. W. Fong, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. VIII. A Comparison to Cosmological Short-duration Gamma-Ray Bursts”, 2017, ApJL, 848, 23
102. P. Blanchard, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. VII. Properties of the Host Galaxy and Constraints on the Merger Timescale”, 2017, ApJL, 848, 22
101. K. Alexander, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. VI. Radio Constraints on a Relativistic Jet and Predictions for Late-time Emission from the Kilonova Ejecta”, 2017, ApJL, 848, 21
100. R. Margutti, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. V. Rising X-Ray Emission from an Off-axis Jet”, 2017, ApJL, 848, 20
99. R. Chornock, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. V. Rising X-Ray Emission from an Off-axis Jet”, 2017, ApJL, 848, 19
98. P. Cowperthwaite, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. I. Discovery of the Optical Counterpart Using the Dark Energy Camera”, 2017, ApJL, 848, 16
97. B. P. Abbott, ..., **B. D. Metzger**, et al., “Multi-messenger Observations of a Binary Neutron Star Merger”, 2017, ApJ, 848, 12
96. J. Farihi, L. Fossati, **B. D. Metzger**, et al., “Magnetism, X-rays, and Accretion Rates in WD 1145+017 and other Polluted White Dwarf Systems”, 2017, accepted MNRAS
95. M. Nicholl, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. III. Optical and UV Spectra of a Blue Kilonova from Fast Polar Ejecta”, 2017, ApJL, 848, 18
94. D. M. Siegel, **B. D. Metzger**, “Three-dimensional GRMHD simulations of the remnant accretion disks from neutron star mergers: outflows and r-process nucleosynthesis”, 2017, accepted to PRL
93. O. Pejcha, **B. D. Metzger**, J. Tyles, K. Tomida, “Pre-explosion spiral mass loss of a binary star merger”, 2017, accepted ApJ
92. M. Soares-Santos, ..., **B. D. Metzger**, et al., “The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. I. Dark Energy Camera Discovery of the Optical Counterpart”, 2017, accepted ApJL
91. B. P. Abbott, ..., **B. D. Metzger**, et al., “A gravitational-wave standard siren measurement of the Hubble constant”, 2017, accepted Nature
90. **B. D. Metzger**, O. Pejcha, “Shock-powered light curves of luminous red novae as signatures of pre-dynamical mass loss in stellar mergers”, 2017, MNRAS, 471, 3200

89. K. L. Li, **B. D. Metzger**, et al., “A nova outburst powered by shocks”, 2017, *Nature Astronomy*, 1, 697
88. J. Lippuner, ..., **B. D. Metzger** et al., “Signatures of hypermassive neutron star lifetimes on r-process nucleosynthesis in the disk ejecta from neutron star mergers”, 2017, *MNRAS*, 472, 904
87. K. Feng, **B. D. Metzger**, “High-Energy Neutrinos from Millisecond Magnetars formed from the Merger of Binary Neutron Stars”, 2017, accepted to *ApJ*
86. A. Villar, E. Berger, **B. D. Metzger**, J. Guillochon, “Theoretical Models of Optical Transients. I. A Broad Exploration of the Duration-Luminosity Phase Space”, 2017, accepted to *ApJ*
85. M. Nicholl, ..., **B. D. Metzger**, “Empirical constraints on the origin of fast radio bursts: volumetric rates and host galaxy demographics as a test of millisecond magnetar connection”, 2017, *ApJ*, 843, 84
84. **B. D. Metzger**, “Kilonovae”, 2017, *Living Reviews of Relativity*, 20, 3
83. **B. D. Metzger**, K. J. Shen, N. C. Stone, S. Marka, “Secular Dimming of KIC 8462852 Following its Consumption of a Planet”, 2017, *MNRAS*, 468, 4399
82. **B. D. Metzger**, E. Berger, B. Margalit, “Millisecond Magnetar Birth Connects FRB 121102 to Superluminous Supernovae and Long Duration Gamma-ray Bursts”, 2017, *ApJ*, 841, 14
81. A. Vlasov, **B. D. Metzger**, J. Lippuner, L. F. Roberts, T. A. Thompson, “Neutrino-heated winds from millisecond proto-magnetars as sources of the weak r-process”, 2017, *MNRAS*, 468, 1522
80. A. Derdzinski, **B. D. Metzger**, D. Lazzati, “Radiative shocks create environments for dust formation in novae”, 2017, *MNRAS*, 469, 1314
79. Stone, N., **B. D. Metzger**, Z. Haiman, “Assisted Inspirals of Stellar Mass Black Holes Embedded in AGN Disks: Solving the Final AU Problem”, 2017, *MNRAS*, 464, 946
78. Nicholl, M., Berger, E.; Margutti, R., Blanchard, P. K., Milisavljevic, D., Challis, P., **B. D. Metzger**, Chornock, R., “An ultraviolet excess in the superluminous supernova Gaia16apd reveals a powerful central engine”, 2017, *ApJ*, 835, 8
77. B. Margalit, **B. D. Metzger**, “Merger of a White Dwarf-Neutron Star Binary to 10^{29} Carat Diamonds: Origin of the Pulsar Planets”, 2017, *MNRAS*, 465, 2790
76. Generozov, P. Mimica, **B. D. Metzger**, N. Stone, G. Giannios, M. A. Aloy, “The influence of circumnuclear environment on the radio emission from TDE jets”, 2017, *MNRAS*, 464, 2481

2016

75. R. Margutti, **B. D. Metzger**, et al., “X-rays from the location of the Bactrian Transient ASASSN-15lh”, 2016, *ApJ*, 836, 25

74. M. Wu, R. Fernandez, G. Martinez-Pinedo, **B. D. Metzger**, “Production of all r-process nuclides by black hole accretion disk outflows from neutron star mergers”, 2016, MNRAS, 463, 2323
73. W. Fong, **B. D. Metzger**, E. Berger, F. Ozel, “Radio Constraints on Long-Lived Magnetar Remnants in Short Gamma-Ray Bursts”, 2016, ApJ, 831, 141
72. T. Moriya, **B. D. Metzger**, S. Blinnikov, “Supernovae powered by magnetars that transform into black holes”, 2016, ApJ, 833, 64
71. P. Cowperthwaite, E. Berger, M. Soares-Santos, ..., **B. D. Metzger**, et al. , “A DECam Search for an Optical Counterpart to the LIGO Gravitational Wave Event GW151226,” 2016, ApJL, 826, L29
70. A. Vlasov, **B. D. Metzger**, I. Vurm, ”Shocks in nova outflows. II. Synchrotron radio emission”, 2016, MNRAS, 463, 394
69. **B. D. Metzger**, C. Zivancev, ”Pair Fireball Precursors of Neutron Star Mergers”, 2016, MNRAS, 461, 4435
68. O. Pejcha, **B. D. Metzger**, Kengo Tomida, “Binary Stellar Mergers with Marginally-Bound Ejecta: Excretion Disks, Inflated Envelopes, Outflows, and their Luminous Transients”, 2016, MNRAS, 461, 2527
67. M. Nicholl, E. Berger, S. Smartt, ... , **B. D. Metzger**, ..., ”SN 2015bn: a detailed multi-wavelength view of a nearby superluminous supernova”, 2016, ApJ, 826, 39
66. Levan, A. J., Tanvir, N. R., Brown, G. C., **B. D. Metzger**, et al. , ”Late Time Multi-wavelength Observations of Swift J1644+5734: A Luminous Optical/IR Bump and Quiescent X-Ray Emission”, 2016, ApJ, 819, 51
65. Abbott, B. P., Abbott, R., Abbott, T. D., ..., **B. D. Metzger**, et al. , ”Localization and broadband follow-up of the gravitational-wave transient GW150914”, 2016, ApJL, 826, L13
64. Annis, J., Soares-Santos, M., Berger, E., ..., **B. D. Metzger**, et al., ”A Dark Energy Camera Search for Missing Supergiants in the LMC After the Advanced LIGO Gravitational Wave Event GW150914”, 2016, ApJL, 823, L34,
63. A. Drago, A. Lavagno, **B. D. Metzger** & G. Pagliara, “Quark deconfinement and the duration of short gamma-ray bursts”, 2016, PRD, 93, 103001
62. Soares-Santos, M., Kessler, R., Berger, E., ..., **B. D. Metzger**, et al. ”A Dark Energy Camera Search for an Optical Counterpart to the First Advanced LIGO Gravitational Wave Event GW150914”, 2016, ApJL, 826, L13
61. B. Margalit, **B. D. Metzger** ”Time dependent models of accretion disks with nuclear burning following the tidal disruption of a white dwarf by a neutron star”, 2016, MNRAS, 461, 1154
60. **B. D. Metzger**, D. Caprioli, I. Vurm, A. M. Beloborodov, I. Bartos, A. Vlasov, “Novae as Tevatrons: prospects for CTA and IceCube”, 2016, MNRAS, 457, 1786

59. Fernández, R., & **B. D. Metzger** "Electromagnetic Signatures of Neutron Star Mergers in the Advanced LIGO Era", 2016, Annual Review of Nuclear and Particle Science, 66
58. J.H. Weston, J. L. Sokoloski, B. D. Metzger, et al. "Non-thermal radio emission from colliding flows in classical nova V1723 Aql", 2016, MNRAS, 457, 887
57. O. Pejcha, **B. D. Metzger**, Kengo Tomida, "Cool and Luminous Transients from Mass Losing Binary Star", 2016, MNRAS, 455, 4351
56. S. van Velzen, G. Anderson, N. Stone, M. Fraser, T. Wevers, **B. D. Metzger**, et al., "A radio jet from the optical and x-ray bright stellar tidal disruption flare ASASSN-14li", 2016, Science, 351, 62
55. D. Kasen, **B. D. Metzger**, L. Bildsten, "Magnetar Driven Shock Emission and Double Peaked Supernova Light Curves", 2016, ApJ, 821, 36
54. **B. D. Metzger**, N. Stone, 2016 "A Bright Year for Tidal Disruptions", MNRAS, 461, 948
53. N. Stone, **B. D. Metzger**, "Rates of Stellar Tidal Disruption Events as Probes of the Supermassive Black Hole Mass Function", 2016, MNRAS, 455, 859

2015

52. **B. D. Metzger**, B. Margalit, D. Kasen, E. Quataert, "The Diversity of Transients from Magnetar Birth in Core Collapse Supernovae", 2015, MNRAS, 454, 3311
51. B. Margalit, **B. D. Metzger**, A. Beloborodov, "Does the Collapse of a Supramassive Neutron Star Leave a Debris Disk?", 2015, Physical Review Letters, 115, 171101
50. A. Generozov, N. Stone, **B. D. Metzger**, "Circumnuclear Media and Accretion Rates of Quiescent Supermassive Black Holes", 2015, MNRAS, 453, 775
49. **B. D. Metzger**, P. E. G. Williams, E. Berger, "Extragalactic Transients in the Era of Wide-Field Radio Surveys. I. Detection Rates and Light Curve Characteristics", 2015, ApJ, 806, 224
48. **B. D. Metzger**, T. Finzell, I. Vurm, R. Hascoet, A. M. Beloborodov, L. Chomiuk, "Gamma-ray Novae as Probes of Relativistic Particle Acceleration at Non-relativistic Shocks", 2015, MNRAS, 450, 2739
47. P. Mimica, D. Giannios, **B. D. Metzger**, M. A. Aloy, "The radio afterglow of Swift J1644+57 reveals a powerful jet with fast core and slow sheath", 2015, MNRAS, 450, 2824
46. D. Kasen, R. Fernandez, **B. D. Metzger**, "Kilonova Light Curves from the Disk Wind Outflows of Compact Object Mergers", 2015, MNRAS, 446, 750
45. R. Fernandez, D. Kasen, **B. D. Metzger**, "Outflows from Accretion Disks Formed in Neutron Star Mergers: Effect of Black Hole Spin", 2015, MNRAS, 446, 750

44. **B. D. Metzger**, A. Bauswein, S. Goriely, D. Kasen, “Neutron-powered Precursors of Kilonovae”, 2015, MNRAS, 446, 1115
43. N. Stone, **B. D. Metzger**, A. Loeb “Evaporation and Accretion of Extrasolar Comets Following White Dwarf Kicks”, 2015, MNRAS, 448, 188

2014

42. A. Vlasov, **B. D. Metzger**, T. A. Thompson, “Neutrino-Heated Winds from Rotating Proto-Magnetars”, 2014, MNRAS, 444, 3537
41. **B. D. Metzger**, R. Hascoet, I. Vurm, A. Beloborodov, L. Chomiuk, J. L. Sokoloski, T. Nelson, “Shocks in Nova Outflows. I. Thermal Emission”, 2014, MNRAS, 442, 713
40. **B. D. Metzger**, R. Fernandez, “Red or Blue? A Kilonova Imprint of the Delay Until Black Hole Formation Following a Neutron Star Merger”, 2014, MNRAS, 441, 3444
39. **B. D. Metzger**, A. L. Piro, “Optical and X-ray emission from stable millisecond magnetars formed from the merger of binary neutron stars”, 2014, MNRAS, 439, 3916
38. J. L. Ripley, **B. D. Metzger**, A. Arcones, G. Martinez-Pinedo, “X-ray Decay Lines from Heavy Nuclei in Supernova Remnants as a Probe of the r-Process Origin and the Birth Periods of Magnetars”, 2014, MNRAS, 438, 3243
37. W. Fong, E. Berger, **B. D. Metzger**, et al., “Short GRB 130603B: Discovery of a jet break in the optical and radio afterglows, and a mysterious late-time X-ray excess”, 2014, ApJ, 780, 118

2013

36. **B. D. Metzger**, G. C. Bower, “Constraints on long-lived remnants of neutron star binary mergers from late-time radio observations of short duration gamma-ray bursts”, 2013, MNRAS, 437, 1821
35. **B. D. Metzger**, I. Vurm, R. Hascoet, & A. Beloborodov, “Ionization Break-Out from Millisecond Pulsar Wind Nebula: an X-ray Probe of the Origin of Superluminous Supernovae”, 2013, MNRAS, 437, 703
34. A. J. Levan, A. M. Read, **B. D. Metzger**, P. J. Wheatley, & N. R. Tanvir “Superluminous X-rays from a Superluminous Supernova”, 2013, ApJ, 771, 136
33. R. Fernandez, **B. D. Metzger**, “Delayed Outflows from Black Hole Accretion Tori Following Neutron Star Binary Coalescence”, 2013, MNRAS, 435, 502
32. A. Tchekhovskoy, **B. D. Metzger**, D. Giannios, L. Zoltan-Kelly, “Swift J1644+57 Gone MAD: the Case for Dynamically-Important Magnetic Flux Threading the Black Hole in a Jetted Tidal Disruption Event”, 2013, MNRAS, 437, 2744
31. A. Rowlinson, P. T. O’Brien, **B. D. Metzger**, N. R. Tanvir, A. J. Levan, “Signatures of Magnetar Central Engines in Short GRB Lightcurves”, 2013, MNRAS, 430, 1061

30. **B. D. Metzger**, D. L. Kaplan, E. Berger, “Comparing H- α and HI Surveys as Means to a Complete Local Galaxy Catalog in the Advanced LIGO/Virgo Era,” 2013, ApJ, 764, 149
29. G. Bower, **B. D. Metzger**, S. B. Cenko, J. Silverman, J. Bloom, “Late Time Radio Emission from X-ray Selected Tidal Disruption Events,” 2013, ApJ, 763, 84
28. R. Fernandez, **B. D. Metzger**, “Nuclear Dominated Accretion Flows in Two Dimensions. I. Torus Evolution with Parametric Microphysics,” 2013, ApJ, 763, 108

2012

27. **B. D. Metzger**, D. Giannios, D. S. Spiegel, “Optical and X-ray Transients from Planet-Star Mergers,” 2012, MNRAS, 425, 2778
26. **B. D. Metzger**, R. R. Rafikov, K. V. Bochkarev, “Global Models of Runaway Accretion in White Dwarf Debris Disks,” 2012, MNRAS, 423, 505
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8. D. A. Perley, **B. D. Metzger**, et al. , “GRB 080503: Implications of a Naked Short Gamma-Ray Burst Dominated by Extended Emission,” 2008, ApJ, 696, 1871,
7. **B. D. Metzger**, A. L. Piro, & E. Quataert, “Time Dependent Models of Accretion Disks Formed from Compact Object Mergers,” 2008, MNRAS, 390, 781
6. **B. D. Metzger**, T. A. Thompson, & E. Quataert, “On the Conditions for Neutron-Rich Gamma-Ray Burst Outflows,” 2008, ApJ, 676, 1130,
5. **B. D. Metzger**, E. Quataert, & T. A. Thompson, “Short Duration GRBs with Extended Emission from Proto-Magnetar Spin-Down,” 2008, MNRAS, 385, 1455
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3. **B. D. Metzger**, T. A. Thompson, & E. Quataert, “Proto-Neutron Star Winds with Magnetic Fields and Rotation,” 2007, ApJ, 659, 561,
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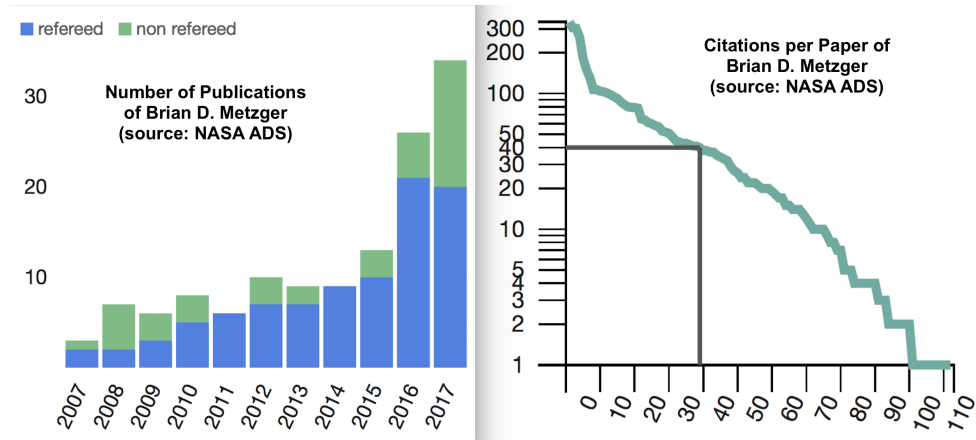


Figure 1: Journal articles by Brian D. Metzger. Reference: NASA ADS

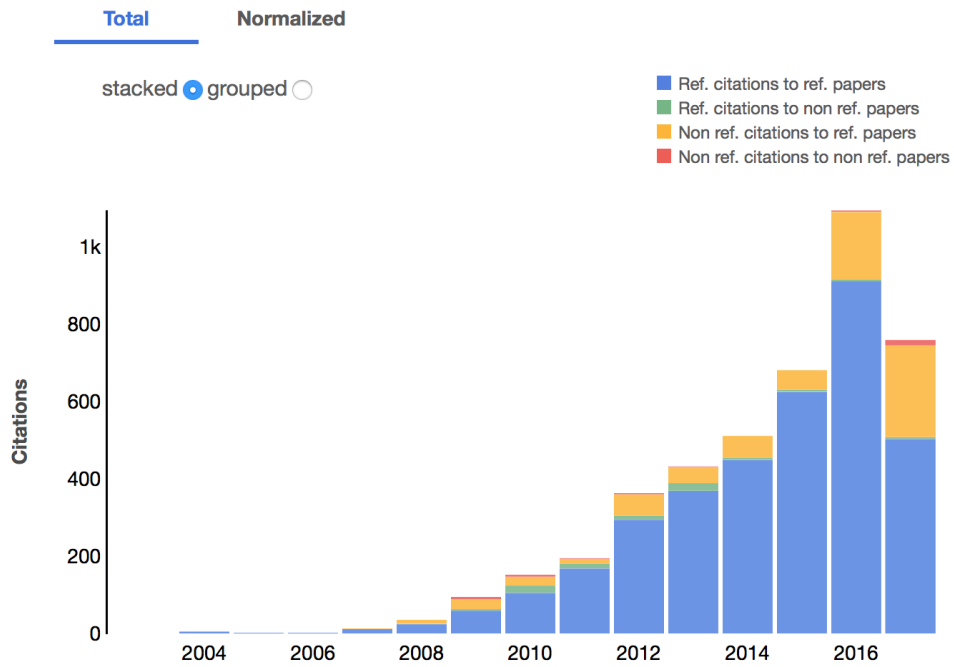


Figure 2: Citations to Journal Articles by Brian D. Metzger. Reference: NASA ADS

INVITED COLLOQUIA, SEMINARS

Colloquia:

Caltech (03/18), Yale (03/18), MIT (03/18), Brookhaven National Lab (02/18), Harvard ITC (10/17)
Harvard CfA (03/17), Guelph (03/17), NASA GSFC (10/16), NRAO Socorro (04/16), U Virginia (02/16),
Stanford (01/16), Indiana (10/15), Purdue (10/15), UT Austin (05/15), RIT (03/15), UCLA (01/15)
Carnegie Observatories (11/14), McGill (09/14), Institute for Nuclear Theory (07/14), Northwestern (12/13)
Space Science Telescope Institute (12/13), UC Santa Cruz (11/12), Maryland (09/12),
Harvard ITC (09/11), Caltech (05/11), Penn State (12/10), Minnesota (10/10),
U Iowa (09/10), Notre Dame (09/10), NASA GSFC Astro (04/10), Michigan State (02/10)

Seminars:

CCAPP (12/17), Stony Brook (11/17), Stony Brook (04/15), Caltech TAPIR (11/14), LIGO GRB Group (10/14)
IAS (03/14), Harvard CfA Lunch Seminar (02/14), U Illinois (12/13), U Penn (10/13), Rutgers (14/13)
Purdue (03/13), CITA (05/12), Caltech TAPIR (04/12), Columbia (03/12), MIT (03/12),
Princeton Wunch (10/11), MIT Gravity (09/11), U Michigan (11/10), Ohio State CCAPP (10/10),
Princeton Wunch (02/10), LBNL (04/09), Harvard CfA ITC (10/08), Princeton Wunch (10/08),
Columbia (10/08)

CONFERENCE TALKS (Invited[†])

04/18 EWASS 2018 Special Session on GW Counterparts[†] (*Liverpool, UK*)
04/18 EWASS 2018 Special Session on Novae[†] (*Liverpool, UK*)
01/18 2018 AAS Winter Meeting[†] (*Washington, DC*)
11/17 JSI Workshop on Cosmic Accelerators[†] (*Annapolis Maryland*)
11/17 The Astrophysics of NS Mergers[†] (*Flatiron Institute NYC*)
10/17 IAUS 338: Gravitational Wave Astrophysics (Plenary)[†] (*Baton Rouge, LA*)
09/17 Tidal Disruption Events: Piercing the Sphere of Influence[†] (*Cambridge, UK*)
07/17 12th Amaldi Conference on Gravitational Waves (Plenary)[†] (*Pasadena, California*)
06/17 Physics of Extreme Gravity Stars[†] (*NORDITA; Stockholm, Sweden*)
06/17 Workshop on Fast Radio Bursts[†] (*Quebec, Ontario*)
05/17 LIGO-LSST Workshop[†] (*New York, NY*)
11/16 Astrophysics in the Era of GW/Multimessenger Observations[†] (*Annapolis, Maryland*)
09/16 MODEST-16 Conference[†] (*New York, NY*)
07/16 GR 21 Conference[†] (*New York, NY*)
05/16 Sackler Conference on “Transient Sky”[†], (*Cambridge, MA*)
05/16 Neutron Stars in the Multi-Messenger Era: Prospects and Challenges[†], (*Athens, Ohio*)
05/16 Mysterious Connection Between Superluminous SNe and GRBs[†], (*Baltimore, Md*)
11/15 Fermi Space Telescope Symposium[†], (*Washington, DC*)
06/15 F. O. E. Fifty One Ergs[†] (*Rayleigh, NC*)
05/15 Workshop on Binary Neutron Star Mergers[†] (*Thessaloniki, Greece*)
11/14 Wide Field Infrared Surveys: Science and Techniques, Contributed (*Pasadena, CA*)
10/14 I-Core Transients Unsolved Mysteries[†] (*Eilat, Israel*)
10/14 GMT Science Meeting on Time-Domain Astrophysics[†] (*Washington, DC*)
08/14 INT Workshop: the *R*-Process: Status and Challenges[†] (*Seattle, WA*)
06/14 Royal Society Gravitational Wave–Gamma-Ray Burst Meeting[†] (*Chicheley Hall, UK*)
06/14 Gamma-Ray Bursts in the Multi-Messenger Era[†] (*Paris, France*)
05/14 Frontiers of Neutron Star Astrophysics[†] (*Ithaca, NY*)
05/14 Workshop on Relativistic Plasma Astrophysics[†] (*West Lafayette, IN*)
04/14 American Physical Society Meeting 2014[†] (*Savannah, GA*)

01/14 GRB-Magnetar Thinkshop[†] (*Bormio, Italy*)
11/13 Putting Accretion Theory to the Test[†] (*Annapolis, MD*)
09/13 Explosive Astrophysical Transients, Contributed (*Santorini, Greece*)
09/13 MICRA 2013, Contributed (*Trento, Italy*)
09/13 Future of Relativistic Jets[†] (*Stockholm, Sweden*)
05/13 Radiative Processes Near Black Holes, Panel (*Princeton, NJ*)
10/12 Gamma-Ray Burst Symposium 2012, Contributed (*Malaga, Spain*)
08/12 Rattle and Shine: GW/EM Studies of CBCs[†] (*KITP Santa Barbara*)
06/12 Tidal Disruption Events and AGN Flares, Contributed (*Madrid, Spain*)
06/12 GRBs in the Era of Rapid Follow-up[†] (*Liverpool, UK*)
03/12 Death of Massive Stars, Contributed (*Nikko, Japan*)
01/12 Physics of Astrophysical Transients, Contributed (*Aspen, CO*)
10/11 Einstein Fellows Symposium[†] (*NASA Goddard*)
09/11 New Horizons in Time Domain Astronomy Workshop[†] (*Oxford, UK*)
09/11 2011 HEAD Meeting[†] (*Newport, RI*)
06/11 MICRA 2011, Contributed (*Perimeter Institute; Waterloo, ON*)
03/11 The Prompt Activity of GRBs, Contributed (*Rayleigh, NC*)
11/10 Gamma-Ray Bursts 2010, Contributed (*Annapolis, MD*)
10/10 Einstein Fellows Symposium (*Harvard CfA*)
07/10 Nuclei in the Cosmos XI, Contributed (*Heidelberg, Germany*)
07/10 GSI R-Process Workshop, Contributed (*Darmstadt, Germany*)
06/10 Supernova Progenitors and Environments, Contributed (*IAP; Paris, France*)
04/10 The Eventful Universe: NOAO 50th Anniversary, Contributed (*Tucson, Az*)
04/10 2010 HEAD Meeting, Dissertation Award Talk[†] (*Big Island, HI*)
01/10 215th AAS Meeting, Contributed (*Washington, DC*)
10/09 Einstein Fellows Symposium[†] (*Harvard CfA*)
10/09 2009 BASH Symposium, Invited Review on Gamma-Ray Bursts[†] (*UT; Austin, TX*)
04/09 Neutron Stars & Gamma-Ray Bursts 2009, Contributed (*Cairo, Egypt*)
04/07 SN 1987A: 20 Years Later, Contributed (*Aspen, CO*)