

**Curriculum Vitae, Updated 10/2018**  
**Brian David Metzger**

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**ACADEMIC POSITIONS**

01/17– Associate Professor of Physics, Columbia University  
01/13–01/17 Assistant Professor of Physics, Columbia University  
09/12–12/12 Lyman Spitzer Jr. Fellow, Princeton University  
09/09–12/12 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**

11/18 New Horizons in Physics Breakthrough Prize  
05/18 Blavatnik National Awards for Young Scientists, Finalist  
04/18 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

## 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–)  
Maggie Smith, Barnard (05/18–)

Graduate Students: Siva Darbha, UC Berkeley (01/09–05/10; 2 publications)  
Konstantin Bochkarev, Princeton (06/11–01/12; 1 publication)  
Andrey Vlasov, Columbia (05/13–05/17; 4 publications)  
Aleksey Gerenezov, Columbia (09/13–05/18; 5 publications)  
Ben Margalit, Columbia (11/14–06/18; 7 publications)  
Dhruv Desai, Columbia (04/16–)  
Thomas Finzell, Michigan State (10/14–2/15; 4 publications)  
Andrea Derdzinski, Columbia (09/15–; 1 publications)  
Jonas Lippuner, Caltech (05/16–1/18; 2 publications)

Postdoctoral: Dr. Nicholas Stone (09/13–), NASA Einstein Fellow  
Dr. Daniel Siegel (11/15–), NASA Einstein Fellow  
Dr. Jennifer Barnes (09/17–), NASA Einstein Fellow  
Dr. Elad Steinberg (09/17–)  
Dr. Eric Coughlin (09/19–), NASA Einstein Fellow

## DEPARTMENTAL SERVICE

**Committee Assignments, Columbia Department of Physics**  
Colloquium (2017), Graduate (2017), Qual (2016), Graduate Admissions (2014,15,17)

**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), Phil Cowperthwaite (Harvard)  
2013– Co-Organizer (w/ A. Beloborodov), High Energy Astrophysics Seminar

## TEACHING EXPERIENCE

- W3007: Electricity & Magnetism (Fa 18)
- W3008: Electricity, Magnetism & Optics (Sp 13, Sp 14, Sp 15)
- W3072: Senior Seminar (Sp 15)
- W3019: Mathematical Methods of Physics (Fa 15, Fa 16, Fa 17)
- W1402: Intro to Electricity, Magnetism & Optics (Sp 16, Sp 17, Sp 18)

## AWARDS and GRANTS as PI

26. “Particle Acceleration at Radiative Shocks in Gamma-Ray Novae”, Fermi Guest Investigator Program, 01/01/19–12/31/19. **Award:** \$60K.
25. “The Role of Shocks in the Appearance and Aftermath of Stellar Mergers and Type II In Supernovae”, HST Guest Investigator Program, 10/01/17–09/30/20. **Award:** \$72K.
24. “Dynamics and Rates of Tidal Disruption Events”, NASA Astrophysics Theory Research Program, 09/01/17–08/31/20. **Award:** \$370.4K.
23. “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.
22. “Particle Acceleration and Non-Thermal Emission in Gamma-Ray Novae”, NASA Fermi Guest Investigator Program, 10/01/16–09/30/17. **Award:** \$45K.
21. “Testing the Magnetar Model for Superluminous Supernovae with Swift”, Swift Guest Investigator Program (NNX16AN77G), 09/01/16–08/31/17. **Award:** \$42K.
20. “Signatures of Shocks and Particle Acceleration in Novae”, NSF Astrophysics Theory (AST-1615084), 07/01/16–06/30/19. **Award:** \$342.7K.
19. “Bringing Novae into the 21st Century,” Research Corporation for Scientific Advancement (PG007637), 01/01/16–12/31/16. **Award:** \$33.3K.
18. “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.
17. “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.
16. “Accretion Disk Outflows from Compact Object Mergers”, NASA Astrophysics Theory Research Program, 10/01/15–09/30/18. **Award:** \$436.7K.
15. “Gamma-Ray Novae as Probes of Shock Acceleration”, NASA Fermi Guest Investigator Program (NNX14AQ68G), 09/01/14–08/31/15. **Award:** \$99K.
14. “Testing the Millisecond Magnetar Model for GRBs and SLSNe” NSF Astrophysics Theory (AST-1410950), 07/15/14–06/30/17. **Award:** \$381.2K.
13. Alfred P. Sloan Research Fellowship, 09/01/14-08/31/16. **Award:** \$50K.

### Custodial PI for Columbia Postdoctoral Fellows:

12. “Stellar Dynamics Near Supermassive Black Holes”, NASA Einstein Fellowship of Nicholas Stone (SAO PF5-160145), 09/01/15–08/31/18. **Award:** \$340K.
11. “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:** \$350K.
10. “Transient Modeling for the Multi-Messenger Era”, NASA Einstein Fellowship of Jennifer Barnes (SAO PF7-180162), 09/01/17–08/31/20. **Award:** \$360K.
9. “Black Hole Enlightenment from Tidal Disruption Event”, NASA Einstein Fellowship of Eric Coughlin, 06/01/18–05/31/19. **Award:** \$120K.

### INVITED COLLOQUIA, SEMINARS, CONFERENCE TALKS

**Colloquia:** Florida State (11/18), MIT (10/18), Chicago (05/18), Caltech (04/18), Yale (03/18), BNL (02/18), Rochester (12/17), Harvard ITC (11/17), Rutgers (11/17), Harvard (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 Obs. (11/14), McGill (09/14), INT Washington (07/14), Northwestern (12/13), STScI (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 (04/10), Michigan State (02/10)

**Seminars:** CCAPP (12/17), Stony Brook (11/17), CCA (11/17), Princeton (10/17), SBU (04/15), Caltech (11/14), LIGO GRB Group (10/14), Berkeley TAC (09/14), IAS (03/14), Harvard CfA (02/14), U Illinois (12/13), U Penn (10/13), Rutgers (14/13), Purdue (03/13), CITA (05/12), Caltech (04/12), Columbia (03/12), MIT (03/12), Princeton (10/11), MIT Gravity (09/11), U Michigan (11/10), Ohio State CCAPP (10/10), Princeton (02/10), LBNL (04/09), Harvard CfA ITC (10/08), Princeton (10/08), Columbia (10/08)

**Conferences:** 51 invited talks since 2010

### INVITED CONFERENCE TALKS

08/18 TeVPA 2018, Plenary Speaker (*Berlin*)

06/18 Astrophysical Frontiers in the Next Decade and Beyond (*Portland, OR*)

05/18 Shocking Supernovae: Surrounding Interactions and Unusual Events (*Stockholm, Sweden*)

05/18 Nuclear Astrophysics in the Era of Multi-Messenger Astronomy (*New York, NY*)

05/18 Sackler Conference on Gravitational Wave Astrophysics (*Harvard*)

04/18 Gravitational Wave Astrophysics During the next LIGO Observing Run (*Princeton*)

04/18 EWASS 2018 Special Session on GW Counterparts (*Liverpool, UK*)

04/18 EWASS 2018 Special Session on Novae (*Liverpool, UK*)

02/18 PAX3 (*State College, PA*)

02/18 CIFAR Meeting on Gravity & Extreme Universe (*Banff*)

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 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*)  
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*)  
10/10 Einstein Fellows Symposium (*Harvard CfA*)  
04/10 2010 HEAD Meeting, Dissertation Award Talk (*Big Island, HI*)  
10/09 Einstein Fellows Symposium (*Harvard CfA*)  
10/09 2009 BASH Symposium, Invited Review on Gamma-Ray Bursts (*UT; Austin, TX*)

## SELECT PROFESSIONAL SERVICE and PUBLIC OUTREACH

### Workshop/Conference Organizer:

- 05/19 “The New Era of GW Physics and Astrophysics,” KITP Santa Barbara
- 06/18 “The Physics of NS Mergers at GSI/FAIR”, GSI Darmstadt
- 05/18 “Nuclear Astrophysics in the Era of Multi-Messenger Astronomy”, World Science Festival
- 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:

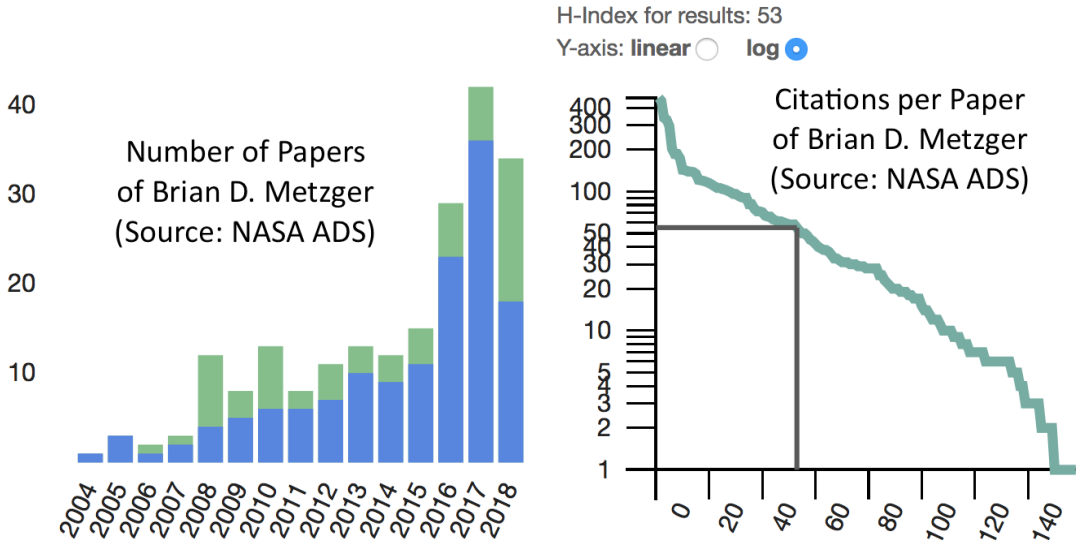
- 01/17 Columbia University RISE Program
- 2010,16,17 NASA Astrophysics Theory Proposal
- 04/16 Cy-Tera and Eastern Mediterranean High Power Computing
- 2015 NASA Chandra Guest Investigator Program
- 01/15 NSF Theoretical Nuclear Physics
- 2014 NASA Postdoctoral Program Fellowship
- 2013– HST Director’s 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:

- 05/18 FRIB Theory Alliance Neutron Star Merger Summer School
- 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



## PEER-REVIEWED PUBLICATIONS

(38 as 1st author,  $\approx 9000$  citations [3500 on first-author], h-index: 52)

### Submitted/ArXiv Only

26. D. Siegel, J. Barnes, **B. D. Metzger**, “The neutron star merger GW170817 points to collapsars as the main r-process source”, Nature submitted
25. M. Nicholl, P. Blanchard, ..., **B. D. Metzger**, et al., “One thousand days of SN 2015bn: HST imaging shows a light curve flattening consistent with magnetar predictions”, ApJ submitted
24. K. Bhimbhakdi, R. Chornock, ... **B. D. Metzger**, et al., “Where is the engine hiding its missing energy? Constraints from a deep X-ray non-detection of the Superluminous SN 2015bn”, ApJ submitted
23. B. Margalit, **B. D. Metzger**, “A concordance picture of FRB 121102 as a flaring magnetar embedded in a magnetized ion-electron wind nebula”, ApJL submitted
22. S. van Velzen, N. C. Stone, **B. D. Metzger**, et al., “Late-time UV observations of tidal disruption flares reveal unobscured, compact accretion disks”, MNRAS submitted
21. M. Wu, J. Barnes, G. Martinez-Pinedo, **B. D. Metzger**, “Fingerprints of heavy element nucleosynthesis in the late-time lightcurves of kilonovae”, PRL submitted
20. **B. D. Metzger**, “Welcome to the Multi-Messenger Era! Lessons from a Neutron Star Merger and the Landscape Ahead”, archive-only submission (arXiv:1710.05931)
19. C. Horowitz, ..., **B. D. Metzger**, et al. “r-Process Nucleosynthesis: Connecting Rare-Isotope Beam Facilities with the Cosmos”, submitted, Journal of Physics G

2018

18. C. J. Law, B. Gaensler, **B. D. Metzger**, E. Ofek, L. Sironi, “Discovery of the Luminous, Decades-Long, Extragalactic Radio Transient FIRST J141918.9+394036”, *ApJL* accepted
17. R. Margutti, R. Chornock, **B. D. Metzger**, et al., “Results from a systematic survey of X-ray emission from Hydrogen-poor Superluminous Supernovae”, *ApJ*, 864, 45
16. E. Steinberg, **B. D. Metzger**, “The Multi-Dimensional Structure of Radiative Shocks: Suppressed Thermal X-rays and Relativistic Ion Acceleration”, *MNRAS*, 479, 687
15. A. Yalinewich, R. Sari, A. Generozov, N. C. Stone, **B. D. Metzger**, “A Generalised Bondi Accretion Model for the Galactic Centre”, *MNRAS*, 479, 4778
14. B. Margalit, **B. D. Metzger**, E. Berger, et al. “Unveiling the engines of fast radio bursts, superluminous supernovae, and gamma-ray bursts”, *MNRAS*, 481, 2406
13. N. Stone, A. Generozov, E. Vasiliev, **B. D. Metzger**, “The Delay Time Distribution of Tidal Disruption Flares”, *MNRAS*, 480, 5060
12. M. Coughlin, Dietrich, T, Zoheyr, D., ..., **B. D. Metzger**, et al. “Constraints on the neutron star equation of state from AT2017gfo using radiative transfer simulations”, *MNRAS*, 480, 3871
11. K. Alexander, ..., **B. D. Metzger**, , “A Decline in the X-ray through Radio Emission from GW170817 Continues to Support an Off-Axis Structured Jet”, *ApJ*, 863, 18
10. **B. D. Metzger**, P. Beniamini, D. Giannios, “Effects of Fall-Back Accretion on Proto-Magnetar Outflows in Gamma-Ray Bursts and Superluminous Supernovae”, *ApJ*, 857, 95
9. A. Generozov, N. Stone, **B. D. Metzger**, J. Ostriker, “An Overabundance of Black Hole X-Ray Binaries in the Galactic Center from Tidal Captures”, *MNRAS*, 478, 4030
8. D. M. Siegel, **B. D. Metzger**, “Three-dimensional GRMHD simulations of neutrino-cooled accretion disks from neutron star mergers”, *ApJ*, 858, 52
7. J. Farihi, L. Fossati, P. Wheatley, **B. D. Metzger**, “Magnetism, X-rays and accretion rates in WD 1145+017 and other polluted white dwarf systems”, 2018, *MNRAS*, 474, 947
6. T. Finzell, L. Chomiuk, **B. D. Metzger**, et al., “A Detailed Observational Analysis of V1324 Sco, the Most Gamma-Ray-luminous Classical Nova to Date”, 2018, *ApJ*, 852, 108
5. **B. D. Metzger**, T. A. Thompson, E. Quataert, E., “A magnetar origin for the kilonova ejecta in GW170817”, *ApJ*, 856, 101
4. R. Margutti, K. Alexander, X. Xie, L. Sironi, **B. D. Metzger**, et al., “The Binary Neutron Star Event LIGO/Virgo GW170817 160 Days after Merger: Synchrotron Emission across the Electromagnetic Spectrum”, *ApJ*, 856, 18
3. I. Vurm, **B. D. Metzger**, “High-energy emission from non-relativistic radiative shocks: application to gamma-ray novae”, 2018, *ApJ*, 852, 62



2. 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*, 858, 18

## 2017

1. K. Fang, **B. D. Metzger**, ”High-energy Neutrinos from Millisecond Magnetars Formed from the Merger of Binary Neutron Stars”, 2017, *ApJ*, 849, 153
0. O. Pejchta; **B. D. Metzger**, J. Tyles, K. Tomida, ”Pre-explosion Spiral Mass Loss of a Binary Star Merger”, 2017, *ApJ*, 850, 59
- 1. Siegel, D. M.; Metzger, B. D., “Three-Dimensional General-Relativistic Magnetohydrodynamic Simulations of Remnant Accretion Disks from Neutron Star Mergers: Outflows and r-Process Nucleosynthesis”, 2017, 119, 1102
- 2. A. Villar, J. Guillochon, E. Berger, **B. D. Metzger**, et al., “The Combined Ultraviolet, Optical, and Near-infrared Light Curves of the Kilonova Associated with the Binary Neutron Star Merger GW170817: Unified Data Set, Analytic Models, and Physical Implications”, 2017, *ApJ*, 851, 21
- 3. N. C. Stone, A. Genozov, E. Vasiliev, **B. D. Metzger**, 2017, “The Delay Time Distribution of Tidal Disruption Flares”, *MNRAS* submitted
- 4. I. Bartos, Z. Haiman, Z. Marka, **B. D. Metzger**, N. Stone, S. Marka, ”Gravitational-wave localization alone can probe origin of stellar-mass black hole mergers”, 2017, *Nature Communications*, 8, 831
- 5. B. Margalit, **B. D. Metzger** et al., 2018, “The GRB-SLSN Connection: mis-aligned magnetars, weak jet emergence, and observational signatures”, *MNRAS*, 475, 2659
- 6. B. Margalit, **B. D. Metzger**, 2017, “Constraining the Maximum Mass of Neutron Stars From Multi-Messenger Observations of GW170817”, *ApJL*, 850L, 19
- 7. G. Brown, A. Levan, ..., **B. D. Metzger**, “Late-time observations of the relativistic tidal disruption flare candidate Swift J1112.2-8238”, 2017, *MNRAS*, 472, 4496
- 8. 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
- 9. **B. D. Metzger**, N. C. Stone, “Periodic accretion-powered flares from colliding EMRIs as TDE Imposters”, 2017, *ApJ*, 844, 75
- 10. 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, *Nature*, 551, 80
- 11. 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

- 12. 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
- 13. 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
- 14. 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
- 15. 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
- 16. 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
- 17. B. P. Abbott, ..., **B. D. Metzger**, et al., “Multi-messenger Observations of a Binary Neutron Star Merger”, 2017, *ApJ*, 848, 12
- 18. 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
- 19. 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*
- 20. B. P. Abbott, ..., **B. D. Metzger**, et al., “A gravitational-wave standard siren measurement of the Hubble constant”, 2017, *Nature*, 551, 85
- 21. **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
- 22. K. L. Li, **B. D. Metzger**, et al., “A nova outburst powered by shocks”, 2017, *Nature Astronomy*, 1, 697
- 23. 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
- 24. 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, *ApJ*, 849, 70
- 25. 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

- 26. **B. D. Metzger**, “Kilonovae”, 2017, Living Reviews of Relativity, 20, 3
- 27. **B. D. Metzger**, K. J. Shen, N. C. Stone, “Secular Dimming of KIC 8462852 Following its Consumption of a Planet”, 2017, MNRAS, 468, 4399
- 28. **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
- 29. 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
- 30. A. Derdzinski, **B. D. Metzger**, D. Lazzati, “Radiative shocks create environments for dust formation in novae”, 2017, MNRAS, 469, 1314
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