

Curriculum Vitae: M. Coleman Miller

Date of Birth: 6 July 1968
Place of Birth: Detroit, MI
Citizenship: USA

The University of Maryland
Department of Astronomy
College Park, MD 20742-2421

E-mail: miller@astro.umd.edu
Telephone: (301) 405-1037
FAX: (301) 314-9067
Webpage: <http://www.astro.umd.edu/~miller/>

Research Interests

Theoretical Astrophysics	Computer Simulations and Modeling
Physics of Dense Matter	Physics in Strong Magnetic Fields
General Relativity	Gravitational Radiation
Plasma Physics	Gravitational Lensing

Education

1984 - 1990 California Institute of Technology, Pasadena, California
Department: Physics, with Computer Science minor
Thesis Topic: Radiation Transfer in Very Strong Magnetic Fields
Degrees: M.S. (1986), Ph.D. (1990) (Advisor: E. S. Phinney)
National Science Foundation Graduate Fellow, 1984-1987

1980 - 1984 Hillsdale College, Hillsdale, Michigan
Major fields: Mathematics and Physics
Degree: B.S., Summa Cum Laude (1984)

Research Experience

2009 - 2020 Professor of Astronomy, University of Maryland
Radboud Excellence Professor, Radboud University, Nijmegen, Netherlands

2017 - 2019 Chair, Maryland Astronomy Center for Theory and Computation

2015 - 2019 Astronomy Director, Joint Space-Science Institute

2013 - 2014 Director, Joint Space-Science Institute

2004 - 2009 Associate Professor of Astronomy, University of Maryland

2004 - 2006 Chair, Maryland Astronomy Center for Theory and Computation

1999 - 2004 Assistant Professor of Astronomy, University of Maryland

1997 - 1999 Member of the AXAF Science Center, Chicago beta test site

1994 - 1997 Compton Gamma-Ray Observatory Fellow, University of Chicago

1993 - 1999 Research Scientist, University of Chicago
Constructed the first detailed model of kilohertz QPOs of neutron star low-mass X-ray binaries, investigated gravitational lensing of gamma-ray bursts and galaxies, and performed various studies of accreting black holes and neutron stars.

1993 Visiting Scientist, Nordita, Copenhagen
Examined effects of radiation forces on accretion onto unmagnetized neutron stars in full general relativity

1990 - 1993 Postdoctoral Research Associate, University of Illinois at Urbana-Champaign
Studied electrodynamics and particle acceleration around accretion-powered neutron stars, investigated thermal emission from isolated neutron stars, and examined methods for the determination of the magnetic inclination angles of pulsars

1985 - 1990 Research Assistant, California Institute of Technology
Developed and extended computer programs to calculate atomic data in very strong magnetic fields, used this data to investigate radiation transfer in the atmospheres of neutron stars with strong magnetic fields, and studied particle orbits around rotating and nonrotating black holes

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1984 Capacity Planning Analyst, Burroughs Corp., Detroit, Michigan
Designed computer performance reporting and analysis programs

Teaching and Outreach Experience

2023 Distinguished Faculty Teaching Prize in the Department of Astronomy, University of Maryland

2022 Prize for Excellence in Mentoring in the Department of Astronomy, University of Maryland

2021 Instructor, Karpacz School of Theoretical Physics, Karpacz, Poland (virtual)

2019 Instructor, masterclass on neutron stars, Nordita, Stockholm, Sweden

2017 Distinguished Faculty Teaching Prize in the Department of Astronomy, University of Maryland

2017 Instructor, Kavli summer school on gravitational wave astronomy at the Niels Bohr Institute, Copenhagen, Denmark

2016 Instructor, winter school on gravitational wave astronomy at UFABC, São Paulo, Brazil

2015 Instructor, summer school on gravitational wave astronomy at the Indian Institute of Science, Bengaluru, India

2014 Instructor, “Look & Listen” winter school (gave lectures on gravitational waves), Playa del Carmen, Mexico

2012 Consultant for the Maryland Dance Ensemble performance “Gravity”

2005, 2006 Astrophysics instructor for University of Texas at Brownsville summer school on gravitational radiation

2004 Instructor, summer school on “Hot Points in Astrophysics and Cosmology”, Dubna, Russia

2004 Dean’s Award for Excellence in Teaching, College of Computer, Mathematical, and Physical Sciences, University of Maryland

2000 Scriptwriter, Adler Planetarium, Chicago, Illinois
Head writer for the planetarium show “Black Holes: Into the Dark Abyss”, which debuted in the Fall of 2000

1999 - Assistant professor (1999–2004), associate professor (2004–2009), and full professor (2009–), University of Maryland
Courses include graduate stellar structure and evolution (spring 2000 and spring 2002), graduate high energy astrophysics (fall 2000, spring 2007, spring 2009, spring 2017, and fall 2022), introductory astronomy for non-majors (spring 2001, fall 2001, spring 2005, fall 2006, fall 2011, and spring 2024), graduate radiative processes (fall 2002, fall 2013, fall 2014, fall 2015, fall 2016, and fall 2021), undergraduate theoretical astrophysics (spring 2003), introductory astronomy for majors (fall 2003, continued spring 2004; fall 2017, continued spring 2018; fall 2018, continued spring 2019; fall 2020, continued spring 2021; fall 2024, continued spring 2025), undergraduate cosmology for majors (fall 2007), high energy astrophysics for undergraduate majors (spring 2008), life in the universe (fall 2008 and fall 2009), problem solving in astrophysics (spring 2010), honors class on black holes (spring 2010, spring 2011, and spring 2012), honors class on life in the universe (spring 2014, spring 2015, and spring 2016), graduate course on practical astrostatistics (spring 2018), undergraduate course on practical astrostatistics (spring 2019), black holes for undergraduate non-majors (spring 2022), stellar structure and evolution for undergraduate majors (spring 2023).

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- 1999 - Graduate thesis advisor or co-advisor at the University of Maryland for Jamie Cohen, Megan DeCesar, Alex Dittmann, Mike Gill, Kayhan Gültekin, Isiah Holt, Vanessa Lauburg, Dheeraj Pasham, Siddhant Solanki, Gokul Srinivasaragavan, Corbin Taylor, Yvette Thackeray, and John Vanlandingham. Graduate thesis committee member for an additional 95 students. Postdoctoral advisor for Joanna Berteaud, Sudip Bhattacharyya, and Stratos Bouloukos, and co-advisor for postdoctoral researchers Bruno Giacomazzo and Sean O'Neill. Undergraduate thesis advisor or co-advisor for Ryan Abrahams, Shreya Anand, Ernesto Benitez, Mia Bovill, Dylan Britt, Laura Dunlap, Ben Flaggs, Katie Futrowsky, Jacob Golomb, Thomas Griffith, Bryan Holler, Ben Johanson, Brooke Kaluziński, Ashley King, Kalman Knizhnik, Scott Lawrence, Jennifer Liang, Nick Magnelli, Brian Prager, Shawn Rosofsky, Mackenzie Samartzis, Joseph Weller, Yuqin Wang, and Logan Wood.
- 1999 - Public speaker
22 talks at the University of Maryland Open House on topics including black holes, neutron stars, cosmology, and life in the universe. More than 40 additional talks to school groups from kindergarten to AP physics classes, as well as to astronomical societies
- 1995 - 1999 Lecturer, Adler Planetarium
Delivered series of lectures on black holes and neutron stars, and series of lectures on the cosmological distance scale, in the Adler Adult Lecture Series. Also taught general relativity and black hole theory to gifted high school students.
- 1996 - 1998 Consultant, Adler Planetarium
Helped develop scientific content for “Seeing the Invisible Universe”, the Fall 1996 planetarium sky show describing recent discoveries in X-ray and gamma-ray astronomy, and consulted on exhibit development and presentations
- 1995 Internet instructor, DuSable High School, Chicago, Illinois
Introduced high school students and teachers to Unix and the World Wide Web

Prizes and Awards

Co-Awardee of the 2022 Bruno Rossi Prize, with the NICER team

Professional Societies

International Astronomical Union
American Astronomical Society
American Physical Society

Accepted Proposals

- 2024 Co-Investigator on the proposal “Pair Discharges and Magnetic Reconnection in Pulsars: Implications for the Multi-Wavelength Emission”, NSF Physics
- 2020 Principal Investigator on the proposal “Optimizing Mass, Radius, and Equation of State Information from NICER Data”, NASA Astrophysics Data Analysis Program
- 2017 Co-Investigator on the proposal “The Central Role of Compact Star Clusters in the Early Universe”, NASA Astrophysics Theory Program
- 2016 Co-Investigator on the proposal “Unifying Spectral and Timing Studies of Relativistic Reflection in Active Galactic Nuclei”, NASA Astrophysical Data Analysis Program
- 2016 Principal Investigator on the proposal “Gravitational Waves and Neutron Star Oscillations”, Fundação de Amparo à Pesquisa do Estado de São Paulo
- 2013 Co-Investigator on the proposal “The Multiscale Physics of Massive Black Hole Formation, Growth and Feedback”, Theoretical and Computational Astrophysics Network

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- 2012 Simons sabbatical fellowship, for the study of electromagnetic counterparts to super-massive black hole binary mergers
- 2010 Principal Investigator on the proposal “Exploration of Extreme Mass Ratio Inspirals with a Tree Code” to the NASA Astrophysics Theory Program
- 2007 Principal Investigator on the proposal “Development of a Tree Code for Extreme Mass Ratio Inspirals” to the NASA Astrophysics Theory Program
- 2007 Principal Investigator on the proposal “Probing Extreme Physics Through Analysis of Neutron Star Surface Emission” to the National Science Foundation Stellar Astronomy and Astrophysics program
- 2007 Co-Investigator on the proposal “Intermediate-Mass Black Holes in Globular Clusters: Key Photometric Fingerprints” to the Hubble Theory program
- 2006 Co-Investigator on the proposal “In Search of Black Hole Spin” to the National Science Foundation Stellar Astronomy and Astrophysics program
- 2003 Co-Investigator on the proposal “Ultra-Luminous X-ray Sources in the Barred Spiral Galaxy NGC 1672”, using the XMM-Newton spacecraft
- 2003 Principal Investigator on the proposal “Dynamics of Black Holes in Dense Stellar Regions”, to the NASA Astrophysics Theory Program
- 2001 Principal Investigator on the proposal “Understanding High-Density Matter Through Analysis of X-ray Bursts”, to the National Science Foundation Stellar Astronomy and Astrophysics program

Professional Activities

- 2018–2021 Councilor, Division of Astrophysics, American Physical Society
- 2018-2021 Member, Executive Committee, Division of Astrophysics, American Physical Society
- 2018 Reviewer, Narodowe Centrum Nauki (Polish National Science Centre)
- 2017 Member, Einstein/Hubble/Sagan Prize Committees, American Astronomical Society
Reviewer, Established Program to Stimulate Competitive Research (EPSCoR)
Reviewer for New York University Abu Dhabi
Member, Pierce and Warner Prize Committees, American Astronomical Society
- 2016 Part of committee to review the Institute for Mathematics, Astrophysics and Particle
Physics at Radboud University (Nijmegen, the Netherlands)
Member, Pierce and Warner Prize Committees, American Astronomical Society
Chair, advisory board for the West Virginia Center for Gravitational Waves and Cos-
mology (to 2018)
- 2015 Reviewer, United States-Israel Binational Foundation
Member, Bethe Prize Committee, American Physical Society
Reviewer, NASA Postdoctoral Program
- 2014 Member, Bethe Prize Committee, American Physical Society
Reviewer, Established Program to Stimulate Competitive Research (EPSCoR)
Organizer, session for 2014 COSPAR meeting
- 2013 Organizer, relativistic astrophysics session for the 10th Amaldi Conference on Gravitational
Waves
Science advisor for the KITP workshop A Universe of Black Holes
- 2012 Reviewer for NASA Postdoctoral Program
Reviewer for the Netherlands Organisation for Scientific Research
Reviewer for NSF Centers for Research Excellence in Science and Technology Program
Member of Executive Committee, Division of Astrophysics, American Physical Society
(to 2014)
- 2011 Reviewer for Swiss National Science Foundation
Reviewer for Deutsche Forschungsgemeinschaft program
Member, NSF Centers of Research Excellence in Science and Technology review panel
Member, NSF Astronomy and Astrophysics Postdoctoral Fellowship panel
Scientific organizing committee, conference on single and double massive black holes in
galaxies, Ann Arbor, MI, 22-25 August 2011
- 2010 Member, INCITE review panel
Chair, LIGO Program Advisory Committee (to 2014)
Chair, Chandra proposal review, June 2010
- 2009 Co-Organizer, “Matter and Electromagnetic Fields in Strong Gravity”, College Park,
Maryland, 24-28 August 2009
- 2008 Member, Rossi X-ray Timing Explorer panel
Member of scientific organizing committee for dense matter session at July 2008
COSPAR meeting in Montreal
- 2006 Exec. Comm. member of the High Energy Astrophysics division of the AAS (to 2009)
Member, LIGO Program Advisory Committee (to 2009)
External reviewer for the PPARC program

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- 2005 Member, NSF review panel for LIGO
Member of scientific organizing committee, “Sixth LISA International Symposium”,
Goddard Space Flight Center
- 2004 Member, Chandra X-ray Observatory review panel
Member of scientific organizing committee, “Making Waves with Intermediate-Mass
Black Holes”, Penn State University
- 2003 Reviewer for the United States-Israel Binational Science Foundation
Session chair and member of scientific organizing committee, meeting on astrophysical
sources of gravitational radiation
Member, NSF review panel for the Advanced LIGO concept
Member, Chandra X-ray Observatory review panel
Session chair, 10th Marcel Grossman meeting on general relativity
Member of scientific organizing committee, “Globular Clusters and Gravitational
Waves”, Penn State University
Member of scientific organizing committee, Second Gravitational Wave Phenomenology
Workshop, Penn State University
- 2000 Panel chair, RXTE proposal review
Session chair, 2000 Maryland October Astrophysics Conference
Reviewer for the Cooperative Grants Program of the U.S. Civilian Research and Devel-
opment Foundation
- 1999 External reviewer for the Scholarly Studies Program of the Harvard-Smithsonian CfA
Member, Astro-E proposal review panel
- 1997 Member, Compton Gamma-Ray Observatory proposal review panel
- 1992– Member of multiple theory proposal review panels for National Science Foundation (in-
cluding the Stellar Astronomy and Astrophysics Program and the Gravitational Physics
program) and NASA (including the Astrophysics Theory Program)
- 1992– Reviewer of more than 200 articles submitted to ApJ, MNRAS, Phys. Rev. Letters,
Phys. Rev. D., Nature, Science, Astronomy & Astrophysics, and several other journals
- 1992– Reviewer of books and book proposals for various publishers including Princeton Uni-
versity Press and Oxford University Press

Presentations

1. “The Evolution of Neutron Star Magnetic Fields”, invited talk, Mal Ruderman memorial conference, Columbia University, 26 February 2025
2. “An Overview of Everything (in theory)”, keynote talk, The Era of Binary Supermassive Black Holes: Coordination of Nanohertz-Frequency Gravitational-Wave Follow-up, Aspen, 4 February 2025
3. “From Neutron Stars to Dense Matter”, physics colloquium, Caltech, 14 November 2024
4. “Accreting Neutron Stars and Black Holes”, invited talk, Time Domain And MultiMessenger meeting, Baton Rouge, 23 September 2024
5. “Neutron Star Measurements and Implications for Dense Matter”, NP3M seminar, 20 September 2024
6. “The Physics of Neutron Stars”, plenary talk (interdisciplinary lecture), COSPAR meeting, Busan, South Korea, 19 July 2024
7. “The Sins of the Priors: Inverse Problems and Statistical Estimation”, invited talk, Inverse Problems and Uncertainty Quantification in Nuclear Physics, Institute for Nuclear Theory, Seattle, 9 July 2024
8. “Measurement of Neutron Star Properties and What We Can Learn from Them”, invited talk, Latin American Conference on Astrophysics and Relativity, Bogotá, Colombia, 25 June 2024
9. “Radius measurements of neutron stars and implications for dense matter”, remote seminar, Xiamen University, Xiamen, China, 18 April 2024
10. “The EMRI-TDE connection”, invited talk, Loss cones in Como meeting, Como, Italy, 8 February 2024
11. “Learning about nuclear physics from neutron star observations”, astronomy colloquium, Radboud University, 28 November 2023
12. “Learning about fundamental physics using black hole observations”, invited talk, Dutch Black Hole Consortium meeting, Radboud University, 17 November 2023
13. “Neutron stars, the high-density equation of state, and NICER”, invited talk, Physics of Neutron Stars meeting, University of Maryland, 27 October 2023
14. “Neutron Star Observations and Dense Matter”, invited talk, Modern Physics of Compact Stars meeting, Yerevan, Armenia, 12 September 2023
15. “A NICER View of Neutron Stars”, physics colloquium, University of Virginia, 8 September 2023
16. “Neutron Star Cooling”, invited talk, Aspen Center for Physics, 24 July 2023
17. “PREX/CREX and Astronomical Observations of Neutron Stars”, invited talk, Jefferson Laboratory Hall A/C meeting, 30 June 2023
18. “Understanding dense matter using NICER observations”, physics colloquium, Texas A&M, 19 January 2023
19. “Neutron Stars and Nuclear Physics”, invited talk to the Physical Review, 1 December 2022
20. “Measuring Neutron Stars”, colloquium, symposium in honor of Mal Ruderman, Columbia, 31 October 2022
21. “Electromagnetic Observations of Neutron Stars”, invited talk, The Future of Neutron Rich Matter, Amherst, MA, 13 October 2022
22. “Measurements of Neutron Stars and Clues to the Nature of Dense Matter”, invited talk, Brazilian Physical Society Spring Meeting, Natal, Brazil, 26 September 2022
23. “Tidal disruptions and EMRIs from tidal separation of binaries”, invited talk, TDEs and EMRIs dynamics, Como, Italy, 6 September 2022
24. “NICER Measurements and Implications for Dense Matter”, invited talk, CSQCD, Banff, Canada, 5 August 2022
25. “X-ray Measurements of Neutron Star Masses and Radii”, invited talk, IAU general assembly, Busan, South Korea, 5 August 2022
26. “Learning about dense matter from gravitational waves”, invited talk, PAX22 meeting, MIT, 2 August 2022

27. “Learning about dense matter from NICER observations”, invited talk, European Centre for Theoretical Studies workshop on “Neutron stars as multi-messenger laboratories for dense matter”, 21 June 2022
28. “Clues to the properties of dense matter using NICER observations”, physics colloquium, University of Illinois, 9 February 2022
29. “Learning About Dense Matter from Astronomical Observations”, seminar, nuclear theory group, University of Maryland, 9 December 2021
30. “Taking the Measure of Neutron Stars with NICER”, colloquium, California State University at Long Beach, 18 October 2021
31. “A NICER Path to Neutron Star Radii”, colloquium, University of Chicago, 13 October 2021
32. “NICER and Neutron Star Radii”, invited talk, Modern Physics of Compact Stars, 27 September 2021
33. “Neutron Star Measurements with NICER”, invited talk, International Symposium on Nuclear Symmetry Energy, 23 September 2021
34. “What Have We Learned About Dense Matter from NICER?”, seminar, Astrophysical and Cosmological Relativity division of the Albert Einstein Institute, Potsdam, Germany, 22 September 2021
35. “Implications of Neutron Star Radius Measurements Using NICER”, astrophysics seminar, Los Alamos National Laboratory, 2 September 2021
36. “NICER Constraints on the Nuclear Equation of State”, invited talk, “Exploring Extreme Matter in the Era of Multimessenger Astronomy: from the Cosmos to Quarks”, Aspen Center for Physics, 13 July 2021
37. “Measuring the Radii of Neutron Stars”, colloquium, Aspen Center for Physics, 1 July 2021
38. “NICER Measurements of the $2.1 M_{\odot}$ pulsar J0740+6620”, invited talk, European Centre for Theoretical Studies workshop on “Neutron stars as multi-messenger laboratories for dense matter”, 15 June 2021
39. “Learning about neutron stars with NASA’s NICER mission”, IAG-USP Astronomy seminar, University of São Paulo, 12 May 2021
40. “NICER Measurements of Pulsars PSR J0030+0451 and PSR J0740+6620”, S@INT seminar, Institute for Nuclear Theory, University of Washington, 22 April 2021
41. “NICER Constraints on the Neutron Star Equation of State”, invited talk, American Physical Society meeting, 17 April 2021
42. “NICER, Gravitational Waves, and Neutron Stars”, nuclear theory seminar, Arizona State University, 23 September 2020
43. “Learning About Dense Matter from Neutron Stars”, nuclear theory seminar, University of Minnesota Twin Cities, 22 September 2020
44. “Learning About Dense Matter Using NICER”, invited talk, Compact Stars and Quantum Chromodynamics meeting, 17 August 2020
45. “What Can We Learn From Gravitational-Wave Observations?”, invited talk, European Astronomical Society meeting, 3 July 2020
46. “The Insides of Neutron Stars”, astrophysics seminar, Center for Computational Astrophysics, Flatiron Institute, 16 April 2020
47. “A NICER Measurement of a Neutron Star”, astronomy colloquium, Radboud University, 10 March 2020
48. “Extremal Principles in Physics”, astronomy theory seminar, Radboud University, 19 February 2020
49. “A NICER View of a Neutron Star”, astronomy colloquium, University of Maryland, 29 January 2020
50. “Neutron Star Mass and Radius from X-ray Observations: the Next Five Years”, invited talk, Dense Matter & Neutron Star Mergers, Institute for Nuclear Theory, University of Washington, 16 December 2019
51. “A NICER View of a Neutron Star”, strong gravity seminar, Perimeter Institute, 12 December 2019
52. “Multiscale Applications of Gravitational-Wave Physics”, astronomy seminar, University of Michigan, 26 November 2019
53. “Exploring the Interiors of Neutron Stars”, physics colloquium, University of Guelph, 12 November 2019

54. “Unveiling the Interiors of Neutron Stars”, nuclear physics seminar, Ohio University, 29 October 2019
55. “What We Do and Do Not Know About Neutron Star Cores”, strong gravity seminar, Perimeter Institute, 25 September 2019
56. “Gravity in Astrophysics”, invited talk, Precision Gravity: from the LHC to LISA, Munich Institute for Astrophysics and Particle Physics, Garching, Germany, 5 September 2019
57. “Astrophysical Context of BH-BH Coalescences”, invited talk, Precision Gravity: from the LHC to LISA, Munich Institute for Astrophysics and Particle Physics, Garching, Germany, 27 August 2019
58. “Spilling the Guts of Neutron Stars”, invited talk, Nordita, Stockholm, Sweden, 16 August 2019
59. “What your competitor’s BBH model can’t do”, invited talk, The New Era of Gravitational-Wave Physics and Astrophysics, Kavli Institute of Theoretical Physics, 10 July 2019
60. “Constraining the High-Density Equation of State with Astronomical Observations”, invited talk, Merging Visions, Kavli Institute of Theoretical Physics, 26 June 2019
61. “Understanding the Interiors of Neutron Stars”, KIPAC astronomy colloquium, Stanford University, 23 May 2019
62. “Peering Inside Neutron Stars”, astronomy colloquium, University of Maryland, 1 May 2019
63. “What can Gravitational Waves Tell Us About the Assembly of Supermassive Black Holes?”, invited talk, American Astronomical Society meeting, Seattle, Washington, 7 January 2019
64. “LISA in the Extreme”, physics colloquium, Montana State University, 2 November 2018
65. “Frontiers in Black Hole Astrophysics”, invited review, Unsolved Problems in Astrophysics and Cosmology, Budapest, Hungary, 2 July 2018
66. “Extreme and Intermediate-mass Black Hole Inspirals”, invited talk, 21st Capra meeting, Golm, Germany, 28 June 2018
67. “What can NS Mergers Tell Us About Dense Matter?”, invited talk, Compact Stars and QCD, New York, NY, 13 June 2018
68. “Arguments For and Against Intermediate-Mass Black Holes”, invited talk, APS April Meeting, Columbus, Ohio, 17 April 2018
69. “Could Dark Matter Consist of Primordial Black Holes?”, physics seminar, University of São Paulo, São Paulo, Brazil, 21 March 2018
70. “Neutron Stars Going Bump in the Night”, cosmology seminar, Johns Hopkins University, 16 November 2017
71. “When Neutron Stars Collide”, astrophysics theory seminar, University of Florida, 25 October 2017
72. “Why Should We Care About Double Neutron Star Mergers?”, invited talk, Joint Space-Science Institute symposium on neutron star gravitational wave detection, University of Maryland, 16 October 2017
73. “Brainstorming: Key Questions and Challenges”, invited review talk, And then there was Light: Electromagnetic Signatures of Stellar Mass Binary Black Hole Mergers, Leiden, Netherlands, 4 September 2017
74. “Putting a Spin on Stellar-Mass Black Holes”, astronomy seminar, Penn State, 1 September 2017
75. “Basics of Magnetic Accretion”, invited talk, High Energy Astrophysics Division meeting, Sun Valley, Idaho, 24 August 2017
76. “Systematics in Mass and Radius Measurements Using NICER data”, invited talk, eXtreme Matter meets eXtreme Gravity, Bozeman, Montana, 18 August 2017
77. “Neutron Star Measurements Using X-rays and Gravitational Waves”, colloquium, Instituto Nacional de Pesquisas Espaciais, São José dos Campos, Brazil, 9 August 2017
78. “Astrophysical Implications of LIGO’s Gravitational Wave Detections”, invited talk, The Physics of Extreme-Gravity Stars, Nordita, Stockholm, Sweden, 21 June 2017
79. “NICER overview and Status”, invited talk, Nuclear Astrophysics in the Gravitational Wave Era, Trento, Italy, 13 June 2017
80. “Neutron Star Measurements Using X-rays and Gravitational Waves”, invited talk, Nuclear Astrophysics in the Gravitational Wave Era, Trento, Italy, 13 June 2017

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81. “Black Holes and Revelations: Gravitational Wave Detections”, physics colloquium, University of Iceland, Reykjavik, Iceland, 29 May 2017
82. “The Wave of the Future”, astronomy colloquium, University of São Paulo, 22 March 2017
83. “How to Tell When You’ve Busted CDM”, physics colloquium, MIT, 18 October 2016
84. “CDM vs. Perceived Structure”, astronomy seminar, Johns Hopkins University, 10 October 2016
85. “Future X-ray and Gravitational Wave Measurements of Neutron Star Masses and Radii”, invited talk, workshop on laboratory and astronomical observations of dense matter, Institute for Nuclear Theory, University of Washington, Seattle, 18 July 2016
86. “An Upper Bound on Neutron Star Masses from Models of Short Gamma-Ray Bursts”, contributed talk, 21st International Conference on General Relativity and Gravitation, Columbia University, 11 July 2016
87. “Implications of the Gravitational Wave Event GW151226”, invited talk, Dense Stellar Environments as a Probe of Astrophysics and General Relativity, Benasque, Spain, 15 June 2016
88. “Dynamical Formation of Double Black Hole Binaries”, invited talk, Dense Stellar Environments as a Probe of Astrophysics and General Relativity, Benasque, Spain, 9 June 2016
89. “Systematic Errors in Neutron Star Radius Measurements”, invited talk, Neutron Stars in the Multi-Messenger Era, Ohio University, 25 May 2016
90. “The Wave of the Future”, physics colloquium, University of Maryland, Baltimore County, 27 April 2016
91. “A New Method for Finding Point Sources in High-energy Neutrino Data”, ITC lunchtime seminar, Harvard, 21 April 2016
92. “GW, short γ -ray bursts, and constraints on NS matter”, ITC colloquium, Harvard, 21 April 2016
93. “The Prospects and Challenges of Measuring NS Masses and Radii Using Waveform Modeling”, invited talk, Accretion onto Magnetized Neutron Stars, Nordita, Stockholm, Sweden, 23 March 2016
94. “The Era of Gravitational-Wave Astronomy”, astronomy seminar, University of Michigan, 18 March 2016
95. “Short GRBs and the Maximum Mass of Neutron Stars”, astronomy colloquium, University of Michigan, 17 March 2016
96. “The Implications of GW150914”, physics seminar, Hillsdale College, 14 March 2016
97. “Neutron Star Upper Mass Limits from GRBs and GWs”, physics colloquium, Texas Tech University, 25 February 2016
98. “Standard Channels for Binary Formation”, invited talk, Rapid-Fire Workshop on Compact Binary Mergers, Columbia University, 20 February 2016
99. “The Discovery of Gravitational Waves: GW at GW”, physics seminar, George Washington University, 16 February 2016
100. “Learning about Neutron Star Matter from X-rays and Gravitational Waves”, invited talk, The Many Faces of Neutron Stars, Garching, Germany, 14 September 2015
101. “Systematics and Statistics for NICER Determination of Neutron Star Masses and radii”, invited talk, Extreme Gravity Workshop, Bozeman, Montana, 20 August 2015
102. “The Challenges of Determining Neutron Star Masses and Radii”, invited talk, The Neutron Star Radius and All That Jazz, Montreal, Canada, 2 July 2015
103. “Constraints on the Dense Matter EOS from Burst Oscillations”, invited talk, Forty Years of X-ray Bursts, Madrid, Spain, 18 June 2015
104. “Neutron Star Upper Mass limits from GRBs and GWs”, contributed talk, What Comes Next for LIGO?, Silver Spring, MD, 7 May 2015
105. “Measurements, Causes, and Effects of Black Hole Spin”, invited talk, Compact Objects as Astrophysical and Gravitational Probes, Leiden, Netherlands, 5 February 2015
106. “Gravitational Wave Detection of Massive Stellar BH Binaries”, invited talk, Aspen meeting on black holes in dense star clusters, Aspen, CO, 22 January 2015
107. “Determining Neutron Star Masses and Radii using NICER Energy-Resolved Waveform Data”, contributed talk, AAS meeting, Seattle, 6 January 2015

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108. “Black Hole Astrophysics”, invited talk, GR@99, Bad Honnef, Germany, 18 September 2014
109. “Challenges in Measuring Neutron Star Radii”, colloquium, Tuorla Observatory, University of Turku, Finland, 12 August 2014
110. “Alignment of Supermassive Black Hole Binary Orbits and Spins”, invited talk, COSPAR meeting, Moscow, Russia, 6 August 2014
111. “Challenges in Measuring Neutron Star Radii”, invited talk, workshop on Binary Neutron Star Coalescence as a Fundamental Physics Laboratory, Seattle, Washington, 15 July 2014
112. “Supermassive Black Hole Binaries: The Case for Aligned Spins”, invited talk, workshop on Unsolved Problems in Astrophysics and Cosmology, Budapest, Hungary, 5 July 2014
113. “Physics with Gravitational Wave Detections”, invited talk, Aspen workshop on ultracompact binaries, Aspen, Colorado, 13 June 2014
114. “Gravitational Waves and the Joint Space-Science Institute”, presentation to congressional staffers, University of Maryland, 17 April 2014
115. “Lemming Black Holes”, astronomy colloquium, McGill University, 15 April 2014
116. “Theoretical Ideas for the Formation and Feeding of IMBHs”, invited talk, ULXs and their Implications for our View of the Universe, Leiden, the Netherlands, 2 April 2014
117. “Lemming Black Holes”, astronomy colloquium, Radboud University, Nijmegen, the Netherlands, 1 April 2014
118. “Mass-Radius Constraints for NS from Pulse Profile Modeling”, invited talk, Joint Space-Science Institute minisymposium, Goddard Space Flight Center, 27 March 2014
119. “Ways to Measure Neutron Star Radii”, invited presentation, workshop on the structure and signals of neutron stars, Florence, Italy, 19 March 2014
120. “Neutron Stars and Very Dense Matter”, seminar, Case Western Reserve University, 5 March 2014
121. “Lemming Black Holes”, colloquium, Case Western Reserve University, 5 March 2014
122. “Measuring the Radii of Neutron Star X-ray Bursters with NICER”, invited talk, American Astronomical Society meeting, Washington, DC, 8 January 2014
123. “Formation of Black Hole Seeds by Core Collapse”, invited talk, Astro-GR@Atlanta, Atlanta, Georgia, 18 November 2013
124. “Current Challenges in the Astrophysics of Neutron Stars and Black Holes”, Rowan University physics colloquium, 27 September 2013
125. “Neutron Stars and Their Planets”, Goddard Space Flight Center Astrophysics Colloquium, 27 August 2013
126. “The Universe of Black Holes that will be Revealed with Gravitational Waves”, Blackboard Lunch talk, Kavli Institute of Theoretical Physics, 19 August 2013
127. “Alignment of the Spins of Supermassive Black Hole Binaries”, invited talk, A Universe of Black Holes, Kavli Institute of Theoretical Physics, 16 August 2013
128. “Systematics in Measurements of Neutron Star Radii”, invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 20 June 2013
129. “Intermediate-Mass Black Holes”, invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 19 June 2013
130. “Gravitational Wave Radiation and Sources”, invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 18 June 2013
131. “Challenges in the Measurement of Neutron Star Radii”, invited talk, Max Born Symposium, Wrocław, Poland, 15 June 2013
132. “How Well Can We Measure Neutron Star Radii?”, invited talk, University of Wrocław, Poland, 13 June 2013
133. “Electromagnetic Counterparts to High-Frequency Gravitational Wave Sources”, invited talk, Science from the First Gravitational Wave Detections, 23 May 2013, South Padre Island, Texas

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134. “How Can We Measure Neutron Star Radii?”, invited seminar, Canadian Institute for Theoretical Astrophysics, 29 April 2013, Toronto, Canada
135. “The Dynamics of Galactic Nuclei”, invited review talk, Black Hole Fingerprints, 20 March 2013, Snowbird, Utah
136. “Neutron Stars and Physical Extremes”, astronomy colloquium, Universidad de Chile, 14 March 2013
137. “Hearing the Universe with Gravitational Waves”, astronomy colloquium, Pontificia Universidad Católica de Chile, 12 March 2013
138. “The Difficulties and Rewards of Neutron Star Radii”, astronomy seminar, Pontificia Universidad Católica de Chile, 11 March 2013
139. “The Near Future of Gravitational Wave Detection”, astronomy colloquium, Universidade Federal do ABC, São Paulo, Brazil, 7 March 2013
140. “Neutron Stars and the Unknowns of Dense Matter”, astronomy colloquium, Universidad Nacional de La Plata, Argentina, 5 March 2013
141. “The Universe As Heard With Gravitational Waves”, astronomy colloquium, Instituto de Astronomía y Física del Espacio, University of Buenos Aires, Argentina, 4 March 2013
142. “Planets Around Neutron Stars”, invited talk, AAS Meeting, Long Beach, CA, 10 January 2013
143. “Fermi Synergies with Advanced LIGO”, invited talk, Fermi Symposium, Monterey, CA, 30 October 2012
144. “How Accretion Disks Wiggle”, CAS seminar, Johns Hopkins University, 9 October 2012
145. “Dynamics and Intermediate-Mass Black Holes”, invited talk at the Chirps, Mergers, and Explosions workshop at the Kavli Institute for Theoretical Physics, Santa Barbara, CA, 12 September 2012
146. “Using Thermonuclear Burst Spectra to Constrain NS Masses and Radii”, invited talk, IAU General Assembly, Beijing, China, 20 August 2012
147. “Neutron Stars and the Extremes of Matter”, colloquium, Yonsei University, Seoul, South Korea, 16 August 2012
148. “The Promise of Gravitational Waves”, colloquium, Seoul National University, 14 August 2012
149. “So What Happens When We Detect GWs from CBCs?”, invited talk, Rattle and Shine conference, Kavli Institute for Theoretical Physics, 3 August 2012
150. “The Implications of Neutron Star Observations for Dense Matter”, plenary talk, CompStar meeting, Tahiti, 7 June 2012
151. “Gravitational Wave Sources from a few Hz to a few kHz”, invited talk, Gravitational Wave Advanced Detector Workshop, Waikoloa Beach, HI, 14 May 2012
152. “The Implications of kHz QPOs”, invited talk, 16 Years of Discovery with RXTE, Goddard Space Flight Center, 30 March 2012
153. “Planets in the Extreme Environments of Neutron Stars”, invited talk, Planets around Stellar Remnants, Arecibo Observatory, Puerto Rico, 26 January 2012
154. “Lemming Black Holes”, University of California at Santa Cruz astronomy colloquium, 23 November 2011
155. “The Connection of LIGO to Astrophysics”, invited talk, Gravitational Wave Open Data Workshop, Livingston, LA, 27 October 2011
156. “Lemming Black Holes”, Howard University physics colloquium, 12 October 2011
157. “Galactic Centers: it’s a Binary’s Life”, invited talk, Astro-GR conference, Palma de Mallorca, Spain, 9 September 2011
158. “Using Thermonuclear Burst Spectra to Constrain Neutron Star Masses and Radii”, invited talk, Astrophysical Transients workshop, University of Washington, 18 July 2011
159. “Tidal Disruption of Tidally Separated Binaries”, invited seminar, Aspen workshop on low-mass and intermediate-mass black holes, Aspen, CO, 7 June 2011
160. “The Spins of Supermassive Black Holes”, invited seminar, Aspen workshop on supermassive black holes, Aspen, CO, 1 June 2011

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161. “Middleweight Black Holes”, general relativity seminar, University of Maryland, 4 May 2011
162. “Probing NS EOS and Synergy with Advanced LIGO and Virgo”, invited talk, International X-ray Observatory meeting, Rome, Italy, 16 March 2011
163. “Using Millisecond Pulsars to Detect 10^{-9} to 10^{-7} Hz Gravitational Waves”, invited talk, Joint Space-Science Institute mini-symposium, College Park, MD, 25 February 2011
164. “Using Gravitational Waves to Constrain Neutron Star Structure”, general relativity seminar, Penn State, 15 February 2011
165. “New Results on the X-ray Spectra of Thermonuclear Bursts”, invited talk, HTRS meeting, Champéry, Switzerland, 9 February 2011
166. “Learning about Dense Matter from Neutron Stars”, astronomy colloquium, University of British Columbia, 10 January 2011
167. “Neutron Stars and the Extremes of Matter”, invited talk, III Challenges workshop, Campos do Jordao, Brazil, 16 December 2010
168. “Introduction to Gravitational Radiation”, invited talk, III Challenges workshop, Campos do Jordao, Brazil, 13 December 2010
169. “X-ray Burst Spectra”, invited talk, Exploring Physics with Neutron Stars, Tucson, Arizona, 19 November 2010
170. “A Possible Explanation for Puzzling Properties of X-ray Bursts”, astronomy colloquium, Caltech, 20 October 2010
171. “Dynamical processes in the production of EMRIs”, invited talk, LISA-GR meeting, Paris, France, 17 September 2010
172. “Putting a spin on supermassive black holes”, astronomy seminar, University of Melbourne, 11 August 2010
173. “What do we know about black holes?”, astronomy seminar, Monash University, Melbourne, Australia, 10 August 2010
174. “AIGO and the structure of neutron stars”, astrophysics seminar, University of Western Australia, 6 August 2010
175. “Astrophysics with gravitational waves”, IAS masterclass, University of Western Australia, 5 August 2010
176. “Formation of stellar-mass black hole binaries”, invited talk, 460th Heraeus symposium, on black holes, Bad Honnef, Germany, 11 June 2010
177. “Learning about neutron stars with LIGO”, LIGO seminar, Caltech, 20 April 2010
178. “Probing the high-density matter of neutron stars”, ITC colloquium, Harvard, 1 April 2010
179. “Introduction to gravitational radiation”, invited talk, Advanced gravitational wave detectors and Advanced LIGO technology, Perth, Australia, 28 February 2010
180. “Astrophysical Influences on the Spins of Supermassive Black Holes”, colloquium, Naval Research Laboratory, Washington, DC, 25 February 2010
181. “Astrophysical Sources for Ground-Based Gravitational Wave Detectors”, invited talk, Advanced gravitational wave detectors and Advanced LIGO technology, Perth, Australia, 23 February 2010
182. “Prospects for gravitational wave detection”, invited talk, Probing Strong Gravity Near Black Holes, Prague, Czech Republic, 18 February 2010
183. “Extreme mass ratio inspirals”, invited talk, Stars and Singularities, Rehovot, Israel, 10 December 2009
184. “Neutron stars, high densities, and nuclear physics”, physics colloquium, Wake Forest University, 4 November 2009
185. “Observations of Black Holes”, invited talk, Shining Light on Black Holes, Ann Arbor, MI, 25 September 2009
186. “Signatures of Kicked Disks and Mass Loss”, invited talk, Matter and Electromagnetic Fields in Strong Gravity, College Park, MD, 27 August 2009
187. “Compact Binaries”, invited talk, Fujihara Seminar, Hayama, Japan, 27 May 2009

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188. “Astrophysics With Few-Hz Gravitational Waves”, invited talk, GWADW meeting, Ft. Lauderdale, FL, 11 May 2009
189. “Astrophysical Influences on the Spins of Supermassive Black Holes”, invited talk, Observational Signatures of Black Hole Mergers, Space Telescope Science Institute, 1 April 2009
190. “Intermediate-Mass Black Holes”, Blackboard Lunch talk, Kavli Institute of Theoretical Physics, 23 March 2009
191. “The Spins and Eccentricities of Comparable-mass Black Hole Binaries”, TAPIR seminar, California Institute of Technology, 9 January 2009
192. “Extreme and Intermediate-Mass Ratio Inspirals”, invited talk, winter AAS meeting, Long Beach, CA, 5 January 2009
193. “Properties of Comparable-Mass Black Hole Binaries”, math seminar, Rochester Institute of Technology, 19 September 2008
194. “What Neutron Stars Can Tell Us About Cold High-Density Matter”, invited talk, meeting on the high-density equation of state in astrophysics, Argonne National Lab, 18 August 2008
195. “Astrophysics with the Laser Interferometer Space Antenna”, invited talk, COSPAR Scientific Assembly, Montreal, Canada, 16 July 2008
196. “Models of Kilohertz Quasi-Periodic Brightness Oscillations”, invited talk, COSPAR Scientific Assembly, Montreal, Canada, 13 July 2008
197. “Intermediate-Mass Black Holes”, invited talk, Seventh International LISA Symposium, Barcelona, Spain, 20 June 2008
198. “How to Make a Stellar-Mass Black Hole Merge”, invited colloquium, University of Amsterdam, Amsterdam, Netherlands, 13 June 2008
199. “The Astrophysical Context of Black Hole Mergers”, invited talk, APS April meeting, St. Louis, Missouri, 14 April 2008
200. “Astrophysical Consequences of Black Hole Kicks”, ASD colloquium, Goddard Space Flight Center 4 March 2008
201. “The Plasma Extremes of Neutron Stars”, plasma physics seminar, University of Maryland, 28 November 2007
202. “Gravitational Wave Observations as Probes of Dark Energy”, invited talk, dark energy workshop, University of Maryland, 15 November 2007
203. “Off the Edge: the Innermost Stable Circular Orbit around Neutron Stars”, astronomy colloquium, University of Michigan, Ann Arbor, Michigan, 13 September 2007
204. “Alignment of black holes in microquasars”, Microquasar workshop, Agios Nikolaos, Crete, Greece, 4 June 2007
205. “Getting a kick out of black hole spin alignment”, Lund Observatory seminar, Lund, Sweden, 31 May 2007
206. “Supermassive black hole alignment, merger, and spin kicks”, astrophysics colloquium, Albert Einstein Institute, Potsdam, Germany, 25 May 2007
207. “Implications of the spin distribution of LMXBs”, invited talk, workshop on neutron star populations, Green Bank, WV, 21 May 2007
208. “Intermediate-Mass Black Holes and Gravitational Radiation”, astrophysics colloquium, Institute for Advanced Study, Princeton, NJ, 6 March 2007
209. “Intermediate-Mass Black Holes”, astronomy colloquium, University of Virginia, Charlottesville, VA, 13 November 2006
210. “Massive Black Holes”, invited review talk, LISA EMRI workshop, Golm, Germany, 18 September 2006
211. “Observations of Massive Black Holes with LISA”, invited talk, LISA analysis workshop, Greenbelt, MD, 25 June 2006
212. “Compact Binaries as Sources of Gravitational Radiation”, invited talk, compact objects conference, Cefalu, Sicily, 20 June 2006

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213. “Ultraluminous X-ray Sources”, invited talk, fourth Harvard Conference on astrophysics, Cambridge, MA, 18 May 2006
214. “Astrophysical Applications of Numerical Relativity”, invited talk, AANR meeting, Guanajuato, Mexico, 6 May 2006
215. “Gravitational Waves from Intermediate-Mass Black Holes”, invited talk, APS, Dallas, Texas, 24 April 2006
216. “Constraints on Alternatives to Supermassive Black Holes”, invited talk, MODEST-6a, Lund, Sweden, 15 December 2005
217. “Gravitational Wave Sources from Dense Star Clusters”, invited talk, MODEST-6, Evanston, IL, 31 August 2005
218. “QPO constraints on neutron stars”, invited talk, A Life With Stars, Amsterdam, Holland, 24 August 2005
219. “Astrophysics With LISA”, invited talk, LISA Data: Analysis, Sources, and Science, Aspen, CO, 30 May 2005
220. “Formation Mechanisms for Intermediate-Mass Black Holes”, invited talk, High Energy Phenomena of Compact Objects, Hsinchu, Taiwan, 14 March 2005
221. “Production of QPOs in Accreting Neutron Star Systems”, invited talk, COSPAR Colloquium on Spectra and Timing of Compact X-ray Binaries, Mumbai, India, 17 January 2005
222. “Why Neutron Stars Are Interesting”, physics colloquium, Georgetown University, 30 November 2004
223. “Gravitational Radiation from Inspirals of Intermediate-Mass Black Holes”, astronomy seminar, University of Pennsylvania, 20 October 2004
224. “Probing General Relativity With Mergers of Supermassive and Intermediate-Mass Black Holes”, solicited talk HEAD Meeting, New Orleans, LA, 9 Sep 2004
225. “Sources of Gravitational Radiation”, Hot Points in Astrophysics, Dubna, Russia, 11 Aug 2004
226. “Quasi-Periodic Brightness Oscillations from Accreting Neutron Stars and Black Holes”, Hot Points in Astrophysics, Dubna, Russia, 4 Aug 2004
227. “Intermediate-Mass Black Holes”, invited review talk, Making Waves With Intermediate-Mass Black Holes, Penn State University, 20 May 2004
228. “And All the Rest (Primordial, Intermediate, and Orphan Black Holes)”, invited review talk, APS April Meeting, Denver, CO, 1 May 2004
229. “Intermediate-Mass Black Holes”, astronomy colloquium, Rutgers University, 26 March 2004
230. “Intermediate-Mass Black Holes”, talk presented to the Data Analysis Working Group of the LISA International Science Team, College Park, MD, 8 December 2003
231. “Fundamental Physics in Quasiperiodic Brightness Oscillations”, invited review talk, X-Ray Timing 2003 Meeting, Boston, MA, 5 November 2003
232. “Challenges for Models of Intermediate-Mass Black Holes”, theoretical astrophysics seminar, University of Illinois at Urbana-Champaign, 15 October 2003
233. “Searching for Gravitational Radiation Sources Using Fluctuation Analysis”, astronomy colloquium, University of Illinois at Urbana-Champaign, 14 October 2003
234. “Black Hole Binaries, Gravitational Waves, and Cockroaches”, astronomy colloquium, University of Maryland, 8 October 2003
235. “Constraints on Superdense Matter from X-ray Binaries”, invited review talk, NATO Advanced Research Workshop on Superdense QCD Matter and Compact Stars, Yerevan, Armenia, 30 September 2003
236. “Formation of Ultraluminous X-ray Sources”, invited talk, workshop on ULXs, Johns Hopkins University, Baltimore, MD, 12 September 2003
237. “Implications of Intermediate-Mass Black Holes for Gravitational Radiation”, invited talk, 10th Marcel Grossman meeting on general relativity, Rio de Janeiro, Brazil, 22 July 2003

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238. "Sonic-Point and Spin Resonance Beat Frequency Model For KiloHertz QPOs", contributed talk, Neutron Stars on Fire, Princeton, NJ, 11 May 2003
239. "Formation Scenarios for Intermediate-Mass Black Holes", invited talk, The Astrophysics of Gravitational Wave Sources, College Park, MD, 25 April 2003
240. "Gravitational Waves from Intermediate-Mass Black Holes", High Energy Astrophysics Division Meeting, Mt. Tremblant, Quebec, 26 March 2003
241. "Intermediate-Mass Black Holes and Gravitational Radiation", Penn State Gravity Center colloquium, State College, PA, 3 March 2003
242. "Intermediate-Mass Black Holes and Gravitational Radiation", invited talk, Aspen Winter Conference on Gravitational Waves, 3 February 2003
243. "Intermediate-Mass Black Holes", Astronomy colloquium, Case Western Reserve University, Cleveland, OH, 15 January 2003
244. "Black Holes in Dense Stellar Regions", Astronomy and Solar Physics colloquium, Goddard Space Flight Center, Greenbelt, MD, 7 November 2002
245. "Intermediate-Mass Black Holes and Gravitational Radiation", colloquium, LIGO Science Center, 1 November 2002
246. "Black Hole Dynamics in Stellar Clusters", astronomy seminar, Southwest Research Institute, 12 July 2002
247. "Origin and Implications of Intermediate-Mass Black Holes", astronomy colloquium, University of Massachusetts at Amherst, 16 May 2002
248. "Intermediate-Mass Black Holes", astrophysics seminar, Institute for Advanced Study, Princeton, New Jersey, 1 May 2002
249. "Medium-Size Black Holes", plenary talk, April Meeting of the American Physical Society, Albuquerque, New Mexico, 20 April 2002
250. "The Neutron Star Equation of State From Fast Timing of X-ray Bursts", XEUS Science Workshop, Munich, Germany, 12 March 2002
251. "Intermediate-Mass Black Holes", invited review talk, Black Holes: Theory Confronts Reality, Santa Barbara, California, 25 February 2002
252. "Gravitational Waves and X-rays from Black Holes in Dense Stellar Clusters", invited talk, AAS Winter Meeting, Washington, D.C., 9 January 2002
253. "Origin and Implications of Intermediate-Mass Black Holes", astronomy colloquium, University of Maryland, 31 October 2001
254. "Origin and Implications of Intermediate-Mass Black Holes", high energy seminar, Goddard Space Flight Center, Greenbelt, MD, 9 October 2001
255. "Production of Intermediate-Mass Black Holes in Globular Clusters", invited talk, Two Years of Science With Chandra, Washington, D.C., 7 September 2001
256. "Consequences of Accretion onto Primordial Compact Objects", invited talk, APS meeting, Washington, D.C., 28 April 2001
257. "Neutron Star Masses", invited review talk, Quark Matter 2001 Conference, Stony Brook, New York, 18 January 2001
258. "Strong Gravity and Dense Matter from Observations of Compact Objects", high energy seminar, Goddard Space Flight Center, Greenbelt, MD, 28 November 2000
259. "Strong Gravity and Neutron Star X-ray Binaries", invited talk, HEAD meeting, Honolulu, Hawaii, 9 November 2000
260. "Small-Scale Structure in Galactic Objects Deduced from X- and Gamma Ray Timing Measurements", invited talk, IAU Symposium #205, Manchester, England, 15 August 2000
261. "Fast Oscillations, General Relativity, and Dense Matter", Astronomy Colloquium, Pennsylvania State University, 26 April 2000

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262. “Science With a Large-Area Timing Instrument”, invited talk, Rossi 2000 meeting, Goddard Space Flight Center, 24 March 2000
263. “Strong Gravity and Ultradense Matter: Implications of Kilohertz Brightness Oscillations”, Astronomy colloquium, University of Virginia, 28 September 1999
264. “Beat-Frequency Models”, invited review talk, X-ray astronomy meeting, Bologna, Italy, 6 September 1999
265. “Recent Developments in Kilohertz QPOs”, invited review talk, HEAD meeting, Charleston, SC, 12 April 1999
266. “Theoretical Interpretation of Kilohertz Brightness Oscillations”, astrophysics colloquium, University of Maryland, 17 March 1999
267. “Taking the Pulse of a Neutron Star”, astrophysics colloquium, University of Chicago, 6 January 1999
268. “Gravitational Lensing Limits on the Average Redshift of Gamma-Ray Bursts”, contributed talk, 19th Texas Symposium on Relativistic Astrophysics, Paris, France, 16 December 1998
269. “A $2.3 M_{\odot}$ Neutron Star? Results from Kilohertz Brightness Oscillations”, theory seminar, Institute of Astronomy, Cambridge, England, 9 December 1998
270. “Implications of Kilohertz Brightness Oscillations in Neutron Star Low-Mass X-ray Binaries”, invited theory seminar, Max Planck Center for Theoretical Astrophysics, Garching, Germany, 2 December 1998
271. “Evidence for a 2.3 Solar Mass Neutron Star and Implications for Dense Matter”, theory seminar, Argonne National Laboratory, Argonne, Illinois, 17 September 1998
272. “Constraints on Neutron Star Masses and Equations of State from Kilohertz QPOs”, theory seminar, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, 11 February 1998
273. “General Relativistic Effects on Gas Dynamics and Radiation Transport Near Neutron Stars”, invited talk, HEAD meeting, Estes Park, CO, 7 November 1997
274. “Neutron Star Mass and Radius Constraints from High-Frequency QPOs”, contributed talk, HEAD meeting, Estes Park, CO, 6 November 1997
275. “Constraints on Neutron Stars Implied by Kilohertz QPOs”, invited talk, BeppoSAX/RXTE Symposium, Rome, 22 October 1997
276. “Models of Kilohertz Quasi-Periodic Brightness Oscillations”, invited talk, 8th Annual October Astrophysics Conference, College Park, MD, 14 October 1997
277. “Sonic-Point Model for Kilohertz Brightness Oscillations in LMXBs”, contributed talk, American Astronomical Society meeting, Winston-Salem, NC, 11 June 1997
278. “Theoretical Interpretation of Kilohertz QPO from LMXBs”, invited talk, American Physical Society general meeting, Washington, DC, 19 April 1997
279. “The Origin of Cosmic Gamma-Ray Bursts”, physics seminar, University of Illinois at Urbana-Champaign, Urbana, Illinois, 17 April 1997
280. “Entering a Data-Rich Era in the Study of Soft Gamma-Ray Repeaters”, relativistic astrophysics seminar, University of Illinois at Urbana-Champaign, Urbana, Illinois, 16 April 1997
281. “The Songs of Neutron Stars: High-Frequency X-ray Brightness Oscillations”, astrophysics colloquium, University of Illinois at Urbana-Champaign, Urbana, Illinois, 15 April 1997
282. “Sonic-Point Model for High-Frequency QPOs in Neutron Star Low-Mass X-ray Binaries”, invited talk, 18th Texas Symposium on Relativistic Astrophysics, Chicago, Illinois, 19 December 1996
283. “Models for Kilohertz Brightness Oscillations”, physics seminar, Stanford University, Palo Alto, California, 5 December 1996
284. “Sonic-Point Interpretation of High-Frequency QPOs”, astronomy seminar, University of California at Berkeley, Berkeley, California, 3 December 1996
285. “Implications of Kilohertz QPOs”, physics seminar, University of California at San Diego, San Diego, California, 26 November 1996
286. “A Model for High-Frequency Brightness Oscillations from Neutron-Star LMXBs”, astronomy seminar, Yale University, New Haven, Connecticut, 21 November 1996

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287. “Constraints on Neutron Stars in LMXBs from High-Frequency QPOs”, astronomy seminar, Columbia University, New York City, 20 November 1996
288. “Sonic-Point Model for Kilohertz Brightness Oscillations”, astronomy colloquium, Copernicus Astronomical Center, Warsaw, Poland, 30 October 1996
289. “Optical/Near-IR Observations of the Bursting Pulsar”, astronomy seminar, Copernicus Astronomical Center, Torun, Poland, 28 October 1996
290. “Interpretation of High-Frequency Quasi-Periodic Oscillations”, physics seminar, Nordita, Copenhagen, 23 October 1996
291. “Constraints on Neutron Star Masses and Radii from Kilohertz Oscillations”, astronomy seminar, Astronomical Institute “Anton Pannekoek”, Amsterdam, 21 October 1996
292. “Soft Gamma-Ray Repeaters: Probes of a New Physical Regime?”, physics seminar, Naval Research Laboratory, Washington, DC, 9 July 1996
293. “Entering a Data-Rich Era in the Study of Soft Gamma-Ray Repeaters”, high energy astrophysics physics seminar, Goddard Space Flight Center, Greenbelt, Maryland, 8 July 1996
294. “Soft Gamma-Ray Repeaters: Probes of a New Physical Regime?”. physics seminar, University of Illinois, Urbana, Illinois, 13 May 1996
295. “Soft Gamma-Ray Repeaters and Ultrastrong Magnetic Fields”, astronomy seminar, University of Wisconsin, Madison, Wisconsin, 4 April 1996
296. “Spectral Signatures of Supercritical Magnetic Fields”, physics seminar, University of North Carolina, Chapel Hill, North Carolina, 1 March 1996
297. “Soft Gamma-Ray Repeaters”, astronomy seminar, North Carolina State, Raleigh, North Carolina, 29 February 1996
298. “Developments in the Study of Soft Gamma-Ray Repeaters”, astrophysics colloquium, University of Chicago, Chicago, Illinois, 21 February 1996
299. “Critical Luminosities in Ultrastrong Magnetic Fields”, astronomy seminar, Northwestern University, Evanston, Illinois, 12 February 1996
300. “Optical/IR Observations of the Bursting Pulsar”, contributed talk, Aspen Workshop on Black-Hole X-ray Transients, Aspen, Colorado, 25 January 1996
301. “Compton Scattering Effects in the Spectra of Soft Gamma-Ray Repeaters”, contributed talk, Third Huntsville Symposium on Gamma-Ray Bursts, Huntsville, Alabama, 27 October 1995
302. “Radiation Drag near Slowly Rotating Neutron Stars”, contributed talk, High Energy Astrophysics Division Meeting, Napa, CA, 2 November 1994
303. “Radiation Drag Near Slowly Rotating Neutron Stars”, contributed talk, Lund workshop on neutron stars, Lund, Sweden, 1 April 1993
304. “Radiation Forces Near Neutron Stars — What a Drag!”, contributed talk, Compact Objects, Nordita, Copenhagen, Denmark, 24 March 1993
305. “Gamma-Ray Production by Neutron Stars Accreting From a Disk”, contributed talk, Compton Gamma-Ray Observatory meeting, St. Louis, Missouri, 16 October 1992
306. “Thermal Emission From Isolated Neutron Stars”, contributed talk, Isolated Pulsars, Taos, New Mexico, 24 February 1992

Publications

Articles in Journals

1. “Multi-Wavelength Analysis of AT 2023sva: a Luminous Orphan Afterglow With Evidence for a Structured Jet”, G. Srinivasaragavan et al., MNRAS, accepted, arXiv:2501.03337.
2. “The fast X-ray transient EP240315a: a $z \sim 5$ gamma-ray burst in a Lyman continuum leaking galaxy”, A. Levan et al., arXiv:2404.16350.
3. “Evidence for eccentricity in the population of binary black holes observed by LIGO-Virgo-KAGRA”, N. Gupte et al., arXiv:2404.14286.
4. “Theoretical and experimental constraints for the equation of state of dense and hot matter”, R. Kumar et al. 2024, *LRR*, **27**, 3 (115 pages).
5. “The interacting double white dwarf population with LISA; stochastic foreground and resolved sources”, A Toubiana, N. Karnesis, A. Lamberts, and M. C. Miller 2024, *A&A*, **692**, A165 (13 pages).
6. “Exploring Waveform Variations among Neutron Star Ray-tracing Codes for Complex Emission Geometries”, D. Choudhury et al. 2024, *ApJ*, **975**, 202 (15 pages).
7. “A More Precise Measurement of the Radius of PSR J0740+6620 Using Updated NICER Data”, A. Dittmann et al. 2024, *ApJ*, **974**, 295 (19 pages).
8. “Investigating the Mass of the Black Hole and Possible Wind Outflow of the Accretion Disk in the Tidal Disruption Event AT2021ehb”, X. Xiang et al. 2024, *ApJ*, **972**, 106 (13 pages).
9. “Characterizing the Ordinary Broad-lined Type Ic SN 2023pel from the Energetic GRB 230812B”, G. Srinivasaragavan et al. 2024, *ApJ*, **960** (15 pages).
10. “Evidence for a strong 19.5 Hz flux oscillation in Swift BAT and Fermi GBM gamma-ray data from GRB 211211A”, C. Chirenti, S. Dichiara, A. Lien, and M. C. Miller 2024, *ApJ*, **967**, 26.
11. “Nontrivial features in the speed of sound inside neutron stars”, D. Mroczek, M. C. Miller, J. Noronha-Hostler, and N. Yunes 2023, arXiv:2309.02345.
12. “Do gravitational wave observations in the lower mass gap favor a hierarchical triple origin?”, V. Gayathri, I. Bartos, S. Rosswog, M. C. Miller, D. Veske, W. Lu, and S. Marka 2023, arXiv:2307.09097.
13. “Hierarchical Triples as Early Sources of r-process Elements”, I. Bartos, S. Rosswog, V. Gayathri, M. C. Miller, D. Veske, and S. Marka 2023, arXiv:2302.10350.
14. “A Sensitive Search for Supernova Emission Associated with the Extremely Energetic and Nearby GRB 221009A”, G. Srinivasaragavan et al. 2023, *ApJ*, **949**, L39 (13 pages).
15. “The Decoupling of Binaries from Their Circumbinary Disks”, A. J. Dittmann, G. Ryan, and M. C. Miller 2023, *ApJ*, **949**, L30 (8 pages).
16. “Kilohertz Quasiperiodic Oscillations in Short Gamma-ray Bursts”, C. Chirenti, S. Dichiara, A. Lien, M. C. Miller, and R. Preece 2023, *Nature*, **613**, 253 (4 pages).
17. “Astrophysics with the Laser Interferometer Space Antenna”, P. Amaro-Seoane et al. 2023, *LRR*, **26**, 2 (328 pages).
18. “A Very Luminous Jet from the Disruption of a Star by a Massive Black Hole”, I. Andreoni et al. 2022, *Nature*, **612**, 430 (5 pages).
19. “The Radius of PSR J0740+6620 from NICER with NICER background estimates”, T. Salmi, S. Vinciguerra, D. Choudhury, T. E. Riley, A. L. Watts, R. A. Remillard, P. S. Ray, S. Bogdanov, S. Guillot, Z. Arzoumanian, C. Chirenti, A. J. Dittmann, K. C. Gendreau, W. C. G. Ho, M. C. Miller, S. M. Morsink, Z. Wadiasingh, and M. T. Wolff 2022, *ApJ*, **941**, 150 (23 pages).
20. “Electromagnetic Counterparts to Massive Black Hole Mergers”, T. Bogdanovic, M. C. Miller, and L. Blecha 2022, *LRR*, **25**, 3 (127 pages).
21. “Gravitational-Wave and X-ray Probes of the Neutron Star Equation of State”, N. Yunes, M. C. Miller, and K. Yagi 2022, *Nature Reviews Physics*, **4**, 237 (10 pages).

22. “The Uncertain Future of Massive Binaries Obscures the Origin of LIGO/Virgo Sources”, K. Belczynski, A. Romagnolo, A. Olejak, J. Klencki, D. Chattopadhyay, S. Stevenson, M. C. Miller, J.-P. Lasota, and P. A. Crowther 2022, *ApJ*, **925**, 69 (13 pages).
23. “Observing intermediate-mass black holes and the upper–stellar-mass gap with LIGO and Virgo”, A. K. Mehta, A. Buonanno, J. Gair, M. C. Miller, E. Farag, R. J. deBoer, M. Wiescher, and F. X. Timmes 2022, *ApJ*, **924**, 39 (21 pages).
24. “The Radius of PSR J0740+6620 from NICER and XMM-Newton Data”, M. C. Miller, F. K. Lamb, A. J. Dittmann, S. Bogdanov, Z. Arzoumanian, K. C. Gendreau, S. Guillot, W. C. G. Ho, J. M. Lattimer, M. Loewenstein, S. M. Morsink, P. S. Ray, M. T. Wolff, C. L. Baker, T. Cazeau, S. Manthripragada, C. B. Markwardt, T. Okajima, S. Pollard, I. Cognard, H. T. Cromartie, E. Fonseca, L. Guillemot, M. Kerr, A. Parthasarathy, T. T. Pennucci, S. Ransom, and I. Stairs 2021, *ApJ Letters*, **918**, L28 (31 pages).
25. “NICER Detection of Thermal X-ray Pulsations from the Massive Millisecond Pulsars PSR J0740+6620 and PSR J1614-2230”, M. T. Wolff, S. Guillot, S. Bogdanov, P. S. Ray, M. Kerr, Z. Arzoumanian, K. C. Gendreau, M. C. Miller, A. J. Dittmann, W. C. G. Ho, L. Guillemot, I. Cognard, G. Theureau, and K. S. Wood 2021, *ApJ Letters*, **918**, L26 (9 pages).
26. “Binary black hole mergers from hierarchical triples in open clusters”, D. Britt, B. Johanson, L. Wood, M. C. Miller, and E. Michaely 2021, *MNRAS*, **505**, 3844 (9 pages).
27. “Constraining the Neutron Star Mass–Radius Relation and Dense Matter Equation of State with NICER. III. Model Description and Verification of Parameter Estimation Codes”, S. Bogdanov, A. J. Dittmann, W. C. G. Ho, F. K. Lamb, S. Mahmoodifar, M. C. Miller, S. M. Morsink, T. E. Riley, T. E. Strohmayer, A. L. Watts, D. Choudhury, S. Guillot, A. K. Harding, P. S. Ray, Z. Wadiasingh, M. T. Wolff, C. B. Markwardt, Z. Arzoumanian, and K. C. Gendreau 2021, *ApJ*, **914**, L15 (19 pages).
28. “Golden galactic binaries for LISA: mass-transferring white dwarf black hole binaries”, L. Sberna, A. Toubiana, and M. C. Miller 2021, *ApJ*, **908**, 1 (6 pages).
29. “Investigating the I-Love-Q and w-mode Universal Relations Using Piecewise Polytropes”, E. Benitez, J. Weller, V. Guedes, C. Chirenti, and M. C. Miller 2021, *Phys. Rev. D*, **103**, 023007 (8 pages).
30. “The origin of inequality: isolated formation of a $30+10M_{\odot}$ binary black-hole merger”, A. Olejak, M. Fishbach, K. Belczynski, D. E. Holz, J.-P. Lasota, M. C. Miller, and T. Bulik 2020, *ApJ Letters*, **901**, L39 (9 pages).
31. “Beaming as an explanation of the repetition/pulse width relation in FRBs”, L. Connor, M. C. Miller, and D. W. Gardinier 2020, *MNRAS*, **497**, 3076 (7 pages).
32. “Merger rates in primordial black hole clusters without initial binaries”, V. Korol, I. Mandel, M. C. Miller, R. P. Church, and M. B. Davies 2020, *MNRAS*, **496**, 994 (7 pages).
33. “The evolutionary roads leading to low effective spins, high black hole masses, and O1/O2 rates of LIGO/Virgo binary black holes”, K. Belczynski, J. Klencki, C. E. Fields, A. Olejak, E. Berti, G. Meynet, C. L. Fryer, D. E. Holz, R. OShaughnessy, D. A. Brown, T. Bulik, S. C. Leung, K. Nomoto, P. Madau, R. Hirschi, S. Jones, S. Mondal, M. Chruslinska, P. Drozda, D. Gerosa, Z. Doctor, M. Giersz, S. Ekstrom, C. Georgy, A. Askar, D. Wysocki, T. Natan, W. M. Farr, G. Wiktorowicz, M. C. Miller, B. Farr, and J.-P. Lasota 2020, *A&A*, **636**, A104 (40 pages).
34. “Star formation in accretion disks and SMBH growth”, A. Dittmann and M. C. Miller 2020, *MNRAS*, **493**, 3732 (12 pages).
35. “Constraining the equation of state of high-density cold matter using nuclear and astronomical measurements”, M. C. Miller, C. Chirenti, and F. K. Lamb 2020, *ApJ*, **888**, 12 (13 pages).
36. “NICER X-Ray Observations of Seven Nearby Rotation-powered Millisecond Pulsars”, S. Guillot, M. Kerr, P. S. Ray, S. Bogdanov, S. Ransom, J. S. Deneva, Z. Arzoumanian, P. Bult, D. Chakrabarty, K. C. Gendreau, W. C. G. Ho, G. K. Jaisawal, C. Malacaria, M. C. Miller, T. E. Strohmayer, M. T. Wolff, K. S. Wood, N. A. Webb, L. Guillemot, I. Cognard, and G. Theureau 2019, *ApJ Letters*, **887**, L27 (15 pages).
37. “Constraining the Neutron Star Mass–Radius Relation and Dense Matter Equation of State with NICER. II. Emission from Hot Spots on a Rapidly Rotating Neutron Star”, S. Bogdanov, F. K. Lamb, S. Mahmoodifar, M. C. Miller, S. M. Morsink, T. E. Riley, T. E. Strohmayer, A. K. Tung, A. L. Watts,

- A. J. Dittmann, D. Chakrabarty, S. Guillot, Z. Arzoumanian, and K. C. Gendreau 2019, *ApJ Letters*, **887**, L26 (23 pages).
38. “Constraining the Neutron Star Mass-Radius Relation and Dense Matter Equation of State with NICER. I. The Millisecond Pulsar X-Ray Data Set”, S. Bogdanov, S. Guillot, P. S. Ray, M. T. Wolff, D. Chakrabarty, W. C. G. Ho, M. Kerr, F. K. Lamb, A. Lommen, R. M. Ludlam, R. Milburn, S. Montano, M. C. Miller, M. Bauböck, F. Özel, D. Psaltis, R. A. Remillard, T. E. Riley, J. F. Steiner, T. E. Strohmayer, A. L. Watts, K. S. Wood, J. Zeldes, T. Enoto, T. Okajima, J. W. Kellogg, C. Baker, C. B. Markwardt, Z. Arzoumanian, and K. C. Gendreau 2019, *ApJ Letters*, **887**, L25 (20 pages).
 39. “PSR J0030+0451 Mass and Radius from NICER Data and Implications for the Properties of Neutron Star Matter”, M. C. Miller, F. K. Lamb, A. J. Dittmann, S. Bogdanov, Z. Arzoumanian, K. C. Gendreau, S. Guillot, A. K. Harding, W. C. G. Ho, J. M. Lattimer, R. M. Ludlam, S. Mahmoodifar, S. M. Morsink, P. S. Ray, T. E. Strohmayer, K. S. Wood, T. Enoto, R. Foster, T. Okajima, G. Prigozhin, and Y. Soong 2019, *ApJ Letters*, **887**, L24 (28 pages).
 40. “Searching for hypermassive neutron stars with short gamma-ray bursts”, C. Chirenti, M. C. Miller, T. Strohmayer, and J. Camp 2019, *ApJ Letters*, **884**, L16 (5 pages).
 41. “A search for high-energy counterparts to fast radio bursts”, V. Cunningham, S. B. Cenko, E. Burns, A. Goldstein, A. Lein, D. Kocevski, M. Briggs, V. Connaughton, M. C. Miller, J. Racusin, and M. Stanbro 2019, *ApJ*, **879**, 40 (13 pages).
 42. “Thermal X-ray emission identified from the millisecond pulsar PSR J1909-3744”, N. A. Webb, D. Leahy, S. Guillot, N. Baillet dEtivaux, D. Barret, L. Guillemot, J. Margueron, and M. C. Miller 2019, *A&A*, **627**, A141 (5 pages).
 43. “Questions related to the equation of state of high-density matter”, M. C. Miller 2019, *Universe*, **5**, 100 (11 pages).
 44. “The new frontier of gravitational waves”, M. C. Miller and N. Yunes 2019, *Nature*, **568**, 469–476.
 45. “Probing neutron star structure via f-mode oscillations and damping in dynamical spacetime models”, S. Rosofsky, R. Gold, C. Chirenti, E. A. Huerta, and M. C. Miller 2019, *Phys. Rev. D*, **99**, 084024.
 46. “Observatory science with eXTP”, J. J. M. in’t Zand et al. 2019, *Science China Physics*, **62**, 29506.
 47. “Accretion in strong field gravity with eXTP”, A. De Rosa et al. 2019, *Science China Physics*, **62**, 29503.
 48. “Dense matter with eXTP”, A. L. Watts et al. 2019, *Science China Physics*, **62**, 29504.
 49. “On the Persistence of QPOs during the SGR 1806–20 Giant Flare”, M. C. Miller, C. Chirenti, and T. E. Strohmayer 2019, *ApJ*, **871**, 95.
 50. “A Unified Model for Tidal Disruption Events”, L. Dai, J. C. McKinney, N. Roth, E. Ramirez-Ruiz, and M. C. Miller 2018, *ApJ Letters*, **859**, L20.
 51. “Did ASAS-SN Kill the Supermassive Black Hole Binary Candidate PG1302–102?”, T. Liu, S. Gezari, and M. C. Miller 2018, *ApJ Letters*, **859**, L12.
 52. “r-process Nucleosynthesis in the Early Universe Through Fast Mergers of Compact Binaries in Triple Systems”, M. Bonetti, A. Perego, P. R. Capelo, M. Dotti, and M. C. Miller 2018, *PASA*, **34**, 17.
 53. “A Strong Test of the Dark Matter Origin of a TeV Electron Excess Using IceCube Neutrinos”, Y. Zhao, K. Fang, M. Su, and M. C. Miller 2018, *JCAP*, **06**, 030.
 54. “Neutron Star Mass and Radius Measurements from Atmospheric Model Fits to X-ray Burst Cooling Tail Spectra”, J. Nättilä, M. C. Miller, A. W. Steiner, J. J. E. Kajava, V. F. Suleimanov, and J. Poutanen 2017, *A&A*, **608**, 31.
 55. “Distinguishing Spin-Aligned and Isotropic Black Hole Populations with Gravitational Waves”, W. M. Farr, S. Stevenson, M. C. Miller, I. Mandel, B. Farr, and A. Vecchio 2017, *Nature*, **548**, 426.
 56. “Energetic Constraints on Electromagnetic Signals from Double Black Hole Mergers”, L. Dai, J. C. McKinney, and M. C. Miller 2017, *MNRAS*, **470**, 92.
 57. “Gravitational Waves from f-modes Excited by the Inspiral of Highly Eccentric Neutron Star Binaries”, C. Chirenti, M. C. Miller, and R. Gold 2017, *ApJ*, **837**, 67.

58. “Identifying Ultrahigh-Energy Cosmic-Ray Accelerators with Future Ultrahigh-Energy Neutrino Detectors”, K. Fang, K. Kotera, M. C. Miller, K. Murase, and F. Oikonomou 2016, *JCAP*, **12**, 017.
59. “Disk-Wind Connection During the Heartbeats of GRS 1915+105”, A. Zoghbi, J. M. Miller, A. L. King, M. C. Miller, D. Proga, T. Kallman, A. C. Fabian, F. A. Harrison, J. Kaastra, J. Raymond, C. S. Reynolds, S. E. Boggs, F. E. Cristensen, W. Craig, C. J. Hailey, D. Stern, and W. W. Zhang 2016, *ApJ*, **833**, 165.
60. “The Role of the Kozai-Lidov Mechanism in Black Hole Binary Mergers in Galactic Centers”, J. H. VanLandingham, M. C. Miller, D. P. Hamilton, and D. C. Richardson 2016, *ApJ*, **828**, 77.
61. “A New Method for Finding Point Sources in High-energy Neutrino Data”, K. Fang and M. C. Miller 2016, *ApJ*, **826**, 102.
62. “Implications of the Gravitational Wave Event GW150914”, M. C. Miller 2016, *GRG*, **48**, 95.
63. “The Case for PSR J1614-2230 as a NICER Target”, M. C. Miller 2016, *ApJ*, **822**, 27.
64. “On the Origin of Broad Iron Lines in Neutron Star Low-mass X-ray Binaries”, C.-Y. Chiang, E. M. Cackett, J. M. Miller, D. Barret, A. Fabian, A. D’Ai, M. L. Parker, S. Bhattacharyya, L. Burderi, T. Di Salvo, E. Egron, J. Homan, R. Iaria, D. Lin, and M. C. Miller 2016, *ApJ*, **821**, 105.
65. “Measuring the neutron star equation of state using X-ray timing”, A. L. Watts, N. Andersson, D. Chakrabarty, M. Feroci, K. Hebel, G. Israel, F. K. Lamb, M. C. Miller, S. Morsink, F. Özel, A. Patruno, J. Poutanen, D. Psaltis, A. Schwenk, A. W. Steiner, L. Stella, L. Tolos, and M. van der Klis 2016, *RMP*, **88**, 021001.
66. “Observational constraints on neutron star masses and radii”, M. C. Miller and F. K. Lamb 2016, *EPJA*, **52**, 63.
67. “Soft X-ray Temperature Tidal Disruption Events from Stars on Deep Plunging Orbits”, L. Dai, J. C. McKinney, and M. C. Miller 2015, *ApJ*, **812**, L39.
68. “Flows of X-ray Gas Reveal the Disruption of a Star by a Massive Black Hole”, J. M. Miller, J. S. Kaastra, M. C. Miller, M. T. Reynolds, G. Brown, S. B. Cenko, J. J. Drake, S. Gezari, J. Guillochon, K. Gultekin, J. Irwin, A. Levan, D. Maitra, W. P. Maksym, R. Mushotzky, P. O’Brien, F. Paerels, J. de Plaa, E. Ramirez-Ruiz, T. Strohmayer, and N. Tanvir 2015, *Nature*, **526**, 542.
69. “An Upper Bound on Neutron Star Masses from Models of Short Gamma-ray Bursts”, S. Lawrence, J. G. Tervala, P. F. Bedaque, and M. C. Miller 2015, *ApJ*, **808**, 186.
70. “Determining Neutron Star Properties by Fitting Oblate Schwarzschild Waveforms To X-ray Burst Oscillations”, M. C. Miller and F. K. Lamb 2015, *ApJ*, **808**, 31.
71. “Disk Winds as an Explanation for Slowly Evolving Temperatures in Tidal Disruption Events”, M. C. Miller 2015, *ApJ*, **805**, 83.
72. “The Masses and Spins of Neutron Stars and Stellar-Mass Black Holes”, M. C. Miller and J. M. Miller 2015, *Physics Reports*, **548**, 1.
73. “The Formation and Gravitational-Wave Detection of Massive Stellar Black-Hole Binaries”, K. Belczynski, A. Buonanno, M. Cantiello, D. E. Holz, C. L. Fryer, I. Mandel, M. C. Miller, and M. Walczak 2014, *ApJ*, **789**, 120.
74. “A Wind Accretion Model for HLX-1”, M. C. Miller, S. A. Farrell, and T. J. Maccarone 2014, *ApJ*, **788**, 116.
75. “Observational Signatures of Binary Supermassive Black Holes”, C. Rödig, J. H. Krolik, and M. C. Miller 2014, *ApJ*, **785**, 115.
76. “Sowing the Seeds of Massive Black Holes in Small Galaxies: Young Clusters as the Building Blocks of Ultracompact Dwarf Galaxies”, P. Amaro-Seoane, S. Konstantinidis, M. D. Freitag, M. C. Miller, and F. A. Rasio 2014, *ApJ*, **782**, 97.
77. “Astrophysical Constraints on Dense Matter in Neutron Stars”, M. C. Miller 2013, “*Timing neutron stars: pulsations, oscillations and explosions*”, arXiv:1312.0029.
78. “Low-Frequency Terrestrial Gravitational-Wave Detectors”, J. Harms, B. J. J. Slagmolen, R. X. Adhikari, M. C. Miller, M. Evans, Y. Chen, H. Müller, and M. Ando 2013, *Phys. Rev. D*, **88**, 12, 122003.

79. "Revisiting Putative Cool Accretion Disks in Ultraluminous X-ray Sources", J. M. Miller, D. J. Walton, A. L. King, M. T. Reynolds, A. C. Fabian, M. C. Miller, and R. C. Reis 2013, *ApJ*, **776**, L36.
80. "Determining Neutron Star Masses and Radii Using Energy-Resolved Waveforms of X-ray Burst Oscillations", K.-H. Lo, M. C. Miller, S. Bhattacharyya, and F. K. Lamb 2013, *ApJ*, **776**, 19.
81. "Alignment of Supermassive Black Hole Binary Orbits and Spins", M. C. Miller and J. H. Krolik 2013, *ApJ*, **774**, 43.
82. "Testing the Rotating Hot Spot Model Using X-ray Burst Oscillations from 4U 1636–536", R. Artigue, D. Barret, F. K. Lamb, K. H. Lo, and M. C. Miller 2013, *MNRAS*, **433**, L64-L68.
83. "The Be/X-ray Binary Swift J1626.6-5156 as a Cyclotron Line Source", M. E. DeCesar, P. T. Boyd, K. Pottschmidt, J. Wilms, S. Suchy, and M. C. Miller 2013, *ApJ*, **762**, 61.
84. "Tidal Disruptions of Separated Binaries in Galactic Nuclei", P. Amaro-Seoane, M. C. Miller, and G. Kennedy 2012, *MNRAS*, **425**, 2401.
85. "An Upper Limit to the Velocity Dispersion of Relaxed Stellar Systems Without Massive Black Holes", M. C. Miller and M. B. Davies 2012, *ApJ*, **755**, 81.
86. "General Relativistic Simulations of Magnetized Plasmas around Merging Supermassive Black Holes", B. Giacomazzo, J. G. Baker, M. C. Miller, C. S. Reynolds, and J. R. van Meter 2012, *ApJ Letters*, **752**, L15.
87. "PSR J0007+7303 in the CTA1 SNR: New Gamma-ray Results from Two Years of *Fermi*-LAT Observations 2011", A. A. Abdo, K. S. Wood, M. E. DeCesar, F. Gargano, F. Giordano, P. S. Ray, D. Parent, A. K. Harding, M. C. Miller, D. L. Wood, and M. T. Wolff 2012, *ApJ*, **744**, 146.
88. "The Large Observatory for X-ray Timing (LOFT)", M. Feroci et al. 2012, *Experimental Astronomy*, **34**, 415-444.
89. "SMBH Formation via Gas Accretion in Nuclear Stellar Clusters", M. B. Davies, M. C. Miller, and J. Bellovary 2011, *ApJ Letters*, **740**, L42.
90. "Low-Frequency Oscillations in Global Simulations of Black Hole Accretion", S. M. O'Neill, C. S. Reynolds, M. C. Miller, and K. A. Sorathia 2011, *ApJ*, **736**, 107.
91. "The Angular Momenta of Neutron Stars and Black Holes as a Window on Supernovae", J. M. Miller, M. C. Miller, and C. S. Reynolds 2011, *ApJ*, **731**, L5.
92. "The Effect of Massive Perturbors on Extreme Mass-Ratio Inspiral Waveforms", N. Yunes, M. C. Miller, and J. Thornburg 2011, *PRD*, **83**, 044044.
93. "Exploring Intermediate and Massive Black-Hole Binaries with the Einstein Telescope", J. R. Gair, I. Mandel, M. C. Miller, and M. Volonteri 2011, *GRG*, **43**, 485-518.
94. "The Drop of the Coherence of the Lower kHz QPOs is Also Observed in XTE J1701–462", D. Barret, M. Bachetti, and M. C. Miller 2011, *ApJ*, **728**, 9.
95. "Super-Eddington Fluxes During Thermonuclear X-ray Bursts", S. Boutloukos, M. C. Miller, and F. K. Lamb 2010, *ApJ*, **720**, L15-L19.
96. "Test of a General Formula for Black Hole Gravitational Wave Kicks", J. R. van Meter, M. C. Miller, J. G. Baker, W. D. Boggs, and B. J. Kelly 2010, *ApJ*, **719**, 1427-1432.
97. "A Deep Chandra Observation of the X-shaped Radio Galaxy 4C +00.58: A Candidate for Merger-induced Reorientation?", E. J. Hodges-Kluck, C. S. Reynolds, M. C. Miller, and C. C. Cheung 2010, *ApJ*, **717**, L37-L41.
98. "Modeling Extreme Mass Ratio Inspirals within the Effective-One-Body Approach", N. Yunes, A. Buonanno, S. A. Hughes, M. C. Miller, and Y. Pan 2010, *PRL*, **104**, 091102.
99. "Modeling Flows Around Merging Black Hole Binaries", J. R. van Meter, J. H. Wise, M. C. Miller, C. S. Reynolds, J. M. Centrella, J. G. Baker, W. D. Boggs, B. J. Kelly, and S. T. McWilliams 2010, *ApJ*, **711**, L89-L93.
100. "The Chandra View of Nearby X-shaped Radio Galaxies", E. J. Hodges-Kluck, C. S. Reynolds, C. C. Cheung, and M. C. Miller 2010, *ApJ*, **710**, 1205-1227.

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101. “Systematic Variation in the Apparent Burning Area of Thermonuclear Bursts and its Implication for Neutron Star Radius Measurement”, S. Bhattacharyya, M. C. Miller, and D. K. Galloway 2010, *MNRAS*, **401**, 2-6.
102. “Relativistic Lines and Reflection from the Inner Accretion Disk Around Neutron Stars”, E. M. Cackett, J. M. Miller, D. R. Ballantyne, D. Barret, S. Bhattacharyya, M. Boutelier, M. C. Miller, T. E. Strohmayer, and R. Wijnands 2009, *ApJ*, **720**, 205-225.
103. “kHz Quasi-Periodic Oscillations in the Low-Mass X-ray Binary 4U 0614+09”, M. Boutelier, D. Barret, and M. C. Miller 2009, *MNRAS*, **399**, 1901-1906.
104. “A Model for the Waveform Behavior of Accreting Millisecond Pulsars: Nearly Aligned Magnetic Fields and Wandering Emission Regions”, F. K. Lamb, S. Boutloukos, S. Van Wassenhove, R. T. Chamberlain, K.-H. Lo, A. Clare, W. Yu, and M. C. Miller 2009, *ApJ*, **706**, 417-435.
105. “Measuring the Spin of GRS 1915+105 With Relativistic Disk Reflection”, J. L. Blum, J. M. Miller, A. C. Fabian, M. C. Miller, J. Homan, M. van der Klis, E. M. Cackett, and R. C. Reis 2009, *ApJ*, **706**, 60-66.
106. “Origin of Intermittent Accretion-Powered Oscillations in Neutron Stars with Millisecond Spin Periods”, F. K. Lamb, S. Boutloukos, S. Van Wassenhove, R. T. Chamberlain, K.-H. Lo, and M. C. Miller 2009, *ApJ*, **705**, L36-L39.
107. “Reaction of Accretion Disks to Abrupt Mass Loss During Binary Black Hole Merger”, S. M. O’Neill, M. C. Miller, T. Bogdanovic, C. S. Reynolds, and J. Schnittman 2009, *ApJ*, **700**, 859-871.
108. “Mass Segregation in NGC 2298: Limits on the Presence of an Intermediate Mass Black Hole”, M. Pasquato, M. Trenti, G. De Marchi, M. Gill, D. P. Hamilton, M. C. Miller, M. Stiavelli, and R. van der Marel 2009, *ApJ*, **699**, 1511-1517.
109. “Intermediate-Mass Black Holes as LISA Sources”, M. C. Miller 2009, *Class. Quant. Grav.*, **26**, 094031.
110. “On the Time Variability of Geometrically-Thin Black Hole Accretion Disks II: Viscosity-Induced Global Oscillation Modes in Simulated Disks”, S. M. O’Neill, C. S. Reynolds, and M. C. Miller 2009, *ApJ*, **693**, 1100-1112.
111. “Mergers of Stellar-Mass Black Holes in Nuclear Star Clusters”, M. C. Miller and V. M. Lauburg 2009, *ApJ*, **692**, 917-923.
112. “On the Time Variability of Geometrically-Thin Black Hole Accretion Disks”, C. S. Reynolds and M. C. Miller 2009, *ApJ*, **692**, 869-886.
113. “Gravitational Waves from Eccentric Intermediate-Mass Black Hole Binaries”, P. Amaro-Seoane, M. C. Miller, and M. Freitag 2009, *ApJ*, **692**, L50-53.
114. “Intermediate-Mass Black Hole Induced Quenching of Mass Segregation in Star Clusters”, M. Gill, M. Trenti, M. C. Miller, R. van der Marel, D. P. Hamilton, and M. Stiavelli 2008, *ApJ*, **686**, 303-309.
115. “Modeling kicks from the merger of generic black-hole binaries”, J. G. Baker, W. D. Boggs, J. Centrella, B. J. Kelly, S. T. McWilliams, M. C. Miller, and J. R. van Meter 2008, *ApJ*, **682**, L29-L32.
116. “Rates and Characteristics of Intermediate-Mass-Ratio Inspirals Detectable by Advanced LIGO”, I. Mandel, D. A. Brown, J. R. Gair, and M. C. Miller 2008, *ApJ*, **681**, 1431-1447.
117. “Discovery of the Upper kilo-Hz QPO from the X-ray Transient Aql X-1”, D. Barret, M. Boutelier, and M. C. Miller 2008, *MNRAS*, **384**, 1519-1524.
118. “Relativistic Iron Emission Lines in Neutron Star Low-Mass X-ray Binaries as Probes of Neutron Star Radii”, E. M. Cackett, J. M. Miller, S. Bhattacharyya, J. E. Grindlay, J. Homan, M. van der Klis, M. C. Miller, T. E. Strohmayer, and R. Wijnands 2008, *ApJ*, **674**, 415-420.
119. “Modeling Kicks from the Merger of Non-precessing Black-hole Binaries”, J. G. Baker, W. D. Boggs, J. Centrella, B. J. Kelly, S. T. McWilliams, M. C. Miller, and J. R. van Meter 2007, *ApJ*, **668**, 1140-1144.
120. “Neutron stars in Einstein-aether theory”, C. Eling, T. Jacobson, and M. C. Miller 2007, *PRD*, **76**, 042003.
121. “Astrophysics, detection and science applications of intermediate- and extreme mass-ratio inspirals”, P. Amaro-Seoane, J. R. Gair, M. Freitag, M. C. Miller, I. Mandel, C. J. Cutler, and S. Babak 2007, *Class. Quant. Grav.*, **24**, R113-R170.

122. “Alignment of the Spins of Supermassive Black Holes Prior to Merger”, T. Bogdanović, C. S. Reynolds, and M. C. Miller 2007, *ApJ*, **661**, L147-L150.
123. “Supporting Evidence for the Signature of the Innermost Stable Circular Orbit in Rossi X-ray Data from 4U 1636-536”, D. Barret, J.-F. Olive, and M. C. Miller 2007, *MNRAS*, **376**, 1139-1144.
124. “Getting a Kick Out of Numerical Relativity”, J. G. Baker, J. Centrella, D. Choi, M. Koppitz, J. R. van Meter, and M. C. Miller 2006, *ApJ*, **653**, L93-L96.
125. “Understanding High-Density Matter Through Analysis of Surface Spectral Lines and Burst Oscillations from Accreting Neutron Stars”, S. Bhattacharyya, M. C. Miller, T. E. Strohmayer, F. K. Lamb, and C. B. Markwardt 2006, *Ad. Space. Res.*, **38**, 2765-2767.
126. “Production of QPOs in Accreting Neutron Star Systems”, M. C. Miller 2006, *Ad. Space Res.*, **38**, 2680-2683.
127. “The MODEST Questions: Challenges and Future Directions in Stellar Cluster Research”, M. B. Davies, P. Amaro-Seoane, C. Bassa, J. Dale, F. De Angelini, M. Freitag, P. Kroupa, D. Mackey, M. C. Miller, and S. Portegies Zwart 2006, *New Astronomy*, **12**, 201-214.
128. “Constraints on the High-Density Nuclear Equation of State from the Phenomenology of Compact Stars and Heavy-Ion Collisions”, T. Klähn, D. Blaschke, S. Typel, E. N. E. van Dalen, A. Faessler, C. Fuchs, T. Gaitanos, H. Grigorian, A. Ho, E. E. Kolomeitsev, M. C. Miller, G. Röpke, J. Trümper, D. N. Voskresensky, F. Weber, and H. H. Wolter 2006, *Phys. Rev. C*, **74**, 035802.
129. “Observing IMBH-IMBH Binary Coalescences via Gravitational Radiation”, J. M. Fregeau, S. L. Larson, M. C. Miller, R. O’Shaughnessy, and F. A. Rasio 2006, *ApJ*, **646**, L135-L138.
130. “The Coherence of Kilohertz Quasi-Periodic Oscillations in the X-rays from Accreting Neutron Stars”, D. Barret, J.-F. Olive, and M. C. Miller 2006, *MNRAS*, **370**, 1140-1146.
131. “The Shapes of Atomic Lines from the Surfaces of Weakly Magnetic Rotating Neutron Stars and Their Implications”, S. Bhattacharyya, M. C. Miller, and F. K. Lamb 2006, *ApJ*, **640**, L1085-L1089.
132. “Constraints on Alternatives to Supermassive Black Holes”, M. C. Miller 2006, *MNRAS*, **367**, L32-L36.
133. “Three-Body Dynamics with Gravitational Wave Emission”, K. Gültekin, M. C. Miller, and D. P. Hamilton 2006, *ApJ*, **640**, 156-166.
134. “On the Robustness of Cool Disc Components in Bright ULXs”, J. M. Miller, A. C. Fabian, and M. C. Miller 2005 (astro-ph/0512552).
135. “Drop in Coherence of the Lower kilo-Hz QPO in Neutron Stars: Is There a Link With the Innermost Stable Circular Orbit?”, D. Barret, J.-F. Olive, and M. C. Miller 2005, *Astronomische Nachrichten*, **326**, 808-811
136. “Binary Encounters With Supermassive Black Holes: Zero-Eccentricity LISA Events”, M. C. Miller, M. Freitag, D. P. Hamilton, and V. M. Lauburg 2005, *ApJ*, **631**, L117-L120.
137. “An Abrupt Drop in the Coherence of the Lower Kilohertz QPO in 4U 1636-536”, D. Barret, J.-F. Olive, and M. C. Miller 2005, *MNRAS*, **361**, 855-860.
138. “Prompt Mergers of Neutron Stars with Black Holes”, M. C. Miller 2005, *ApJ*, **626**, L41-L44.
139. “Constraints on Compact Star Parameters from Burst Oscillation Light Curves of the Accreting Millisecond Pulsar XTE J1814-338”, S. Bhattacharyya, T. E. Strohmayer, M. C. Miller, and C. B. Markwardt 2005, *ApJ*, **619**, 483-491.
140. “Probing General Relativity With Mergers of Supermassive and Intermediate-Mass Black Holes”, M. C. Miller 2005, *ApJ*, **618**, 426-431.
141. “Growth of Intermediate-Mass Black Holes in Globular Clusters”, K. Gültekin, M. C. Miller, and D. P. Hamilton 2004, *ApJ*, **616**, 221-230.
142. “A Comparison of Intermediate Mass Black Hole Candidate ULXs and Stellar-Mass Black Holes”, J. M. Miller, A. C. Fabian, and M. C. Miller 2004, *ApJ*, **614**, L117-L120.
143. “Revealing a Cool Accretion Disk in the Ultraluminous X-ray Source M81 X-9 (Holmberg IX X-1): Evidence for an Intermediate Mass Black Hole”, J. M. Miller, A. C. Fabian, and M. C. Miller 2004, *ApJ*, **607**, 931-938.

144. “Intermediate-Mass Black Holes”, M. C. Miller and E. J. M. Colbert 2004, *International Journal of Modern Physics D*, **13**, 1-64 (astro-ph/0308402).
145. “X-ray Spectroscopic Evidence for Intermediate Mass Black Holes: Cool Accretion Disks in Two Ultra-Luminous X-ray Sources”, J. M. Miller, G. Fabbiano, M. C. Miller, and A. C. Fabian 2003, *ApJ*, **585**, L37-L40.
146. “Sonic-Point and Spin-Resonance Model of the Kilohertz QPO Pairs”, F. K. Lamb and M. C. Miller 2003 (astro-ph/0308179).
147. “Gravitational Radiation from Intermediate-Mass Black Holes”, M. C. Miller 2002, *ApJ*, **581**, 438-450.
148. “Implications of the Narrow Period Distribution of Anomalous X-ray Pulsars and Soft Gamma-Ray Repeaters”, D. Psaltis and M. C. Miller 2002, *ApJ*, **578**, 325-329.
149. “Four-Body Effects in Globular Cluster Black Hole Coalescence”, M. C. Miller and D. P. Hamilton 2002, *ApJ*, **576**, 894-898.
150. “Production of Intermediate-Mass Black Holes in Globular Clusters”, M. C. Miller and D. P. Hamilton 2002, *MNRAS*, **330**, 232-239.
151. “Constraints on High-Density Matter From Observations of Neutron Stars”, M. C. Miller 2002, *Nucl. Phys.*, **A698**, 233c-242c.
152. “Suppression of Gravitational Structure Formation by Cosmological Accretion Heating”, M. C. Miller and E. C. Ostriker 2001, *ApJ*, **561**, 496-503.
153. “Changing Frequency Separation of Kilohertz Quasi-Periodic Oscillations in the Sonic-Point Beat-Frequency Model”, F. K. Lamb and M. C. Miller 2001, *ApJ*, **554**, 1210-1215.
154. “Implications of the PSR 1257+12 Planetary System for Isolated Millisecond Pulsars”, M. C. Miller and D. P. Hamilton, 2001, *ApJ*, **550**, 863-870.
155. “Oscillation Waveforms and Amplitudes from Hot Spots on Neutron Stars”, N. Weinberg, M. C. Miller, and D. Q. Lamb 2001, *ApJ*, **546**, 1098-1106.
156. “Reionization Constraints on the Contribution of Primordial Compact Objects to Dark Matter”, M. C. Miller 2000, *ApJ*, **544**, 43-48.
157. “Precise Interplanetary Network Localization of the Bursting Pulsar GRO J1744–28”, K. Hurley, C. Kouveliotou, T. Cline, D. Cole, M. C. Miller, A. Harmon, G. Fishman, M. Briggs, J. van Paradijs, J. Kommers, and W. Lewin 2000, *ApJ*, **537**, 953-957.
158. “Attenuation of Beaming Oscillations Near Neutron Stars”, M. C. Miller 2000, *ApJ*, **537**, 342-350.
159. “A Characterization of the Brightness Oscillations During Thermonuclear Bursts from 4U 1636–536”, M. C. Miller 2000, *ApJ*, **531**, 458-466.
160. “On the Magnetospheric Beat-Frequency and Lense-Thirring Interpretations of the Horizontal Branch Oscillations in Z Sources”, D. Psaltis, R. Wijnands, J. Homan, P. G. Jonker, M. van der Klis, M. C. Miller, F. K. Lamb, E. Kuulkers, J. van Paradijs, and W. H. G. Lewin 1999, *ApJ*, **520**, 763-775.
161. “Effects of Radiation Forces on the Frequency of Gravitomagnetic Precession Near Neutron Stars”, M. C. Miller 1999, *ApJ*, **520**, 256-261.
162. “Evidence for Antipodal Hot Spots During X-ray Bursts from 4U 1636–536”, M. C. Miller 1999, *ApJ*, **515**, L77-L80.
163. “A Lower Limit on $\Omega_m - \Omega_\Lambda$ Using the Gravitational Lensing Rate in the Hubble Deep Field”, A. R. Cooray, J. M. Quashnock, and M. C. Miller 1999, *ApJ*, **511**, 562-568.
164. “Gravitational Lensing Limits on the Average Redshift of Gamma-Ray Bursts”, D. E. Holz, M. C. Miller, and J. M. Quashnock 1999, *ApJ*, **510**, 54-63.
165. “The Effect of Rapid Stellar Rotation on Neutron Star Equation of State Constraints From Observations of Kilohertz Quasi-Periodic Brightness Oscillations”, M. C. Miller, F. K. Lamb, and G. B. Cook 1998, *ApJ*, **509**, 793-801.
166. “Sonic-Point Model of Kilohertz QPOs in LMXBs”, M. C. Miller, F. K. Lamb, and D. Psaltis 1998, *ApJ*, **508**, 791-830.

Curriculum Vitae of M. Coleman Miller, Page 27

167. “Bounds on the Compactness of Neutron Stars From Brightness Oscillations During X-ray Bursts”, M. C. Miller and F. K. Lamb 1998, *ApJ*, **499**, L37-L40.
168. “Constraints on the Equation of State of Neutron Star Matter from Observations of Kilohertz QPOs”, M. C. Miller, F. K. Lamb, and D. Psaltis 1998, *Nucl. Phys. B (Proc. Suppl.)*, **69**, 123-128.
169. “Constraints on the Production of Ultra-High-Energy Cosmic Rays by Neutron Stars”, A. Venkatesan, M. C. Miller, and A. V. Olinto 1997, *ApJ*, **484**, 323-328.
170. “Optical/Near-Infrared Observations of GRO J1744-28”, D. M. Cole, D. E. Vanden Berk, S. A. Severnson, M. C. Miller, J. M. Quashnock, R. C. Nichol, D. Q. Lamb, K. Hurley, P. Blanco, C. Lidman, and K. Glazebrook 1997, *ApJ*, **480**, 377-382.
171. “Spectral Effects of the Vacuum Resonance in Soft Gamma-Ray Repeaters”, T. Bulik and M. C. Miller 1997, *MNRAS*, **288**, 596-608.
172. “Magnetized Iron Atmospheres for Neutron Stars”, M. Rajagopal, R. W. Romani, and M. C. Miller 1997, *ApJ*, **479**, 347-356.
173. “Motion of Accreting Matter Near Luminous Slowly Rotating Relativistic Stars”, M. C. Miller and F. K. Lamb 1996, *ApJ*, **470**, 1033-1051.
174. “Constraints on Hydrostatic Models of Soft Gamma-Ray Repeaters”, M. C. Miller 1995, *ApJ*, **448**, L29-L32.
175. “Phase Lags in Cygnus X-1”, M. C. Miller 1995, *ApJ*, **441**, 770-775.
176. “Critical Radiation Fluxes and Luminosities of Black Holes and Relativistic Stars”, F. K. Lamb and M. C. Miller 1995, *ApJ*, **439**, 828-845.
177. “Disk-Accreting Magnetic Neutron Stars as High Energy Particle Accelerators”, R. J. Hamilton, F. K. Lamb, and M. C. Miller 1994, *ApJ Suppl.*, **90**, 837-840.
178. “Electrodynamics of Disk-Accreting Magnetic Neutron Stars”, M. C. Miller, F. K. Lamb, and R. J. Hamilton 1994, *ApJ Suppl.*, **90**, 833-836.
179. “Effect of Radiation Forces on Disk Accretion by Weakly Magnetic Neutron Stars”, M. C. Miller and F. K. Lamb 1993, *ApJ*, **413**, L43-L46.
180. “Reliability of Magnetic Inclination Angle Determinations for Pulsars”, M. C. Miller and R. J. Hamilton 1993, *ApJ*, **411**, 298-301.
181. “Model Atmospheres for Neutron Stars”, M. C. Miller 1992, *MNRAS*, **255**, 129-145.
182. “Atoms in Very Strong Magnetic Fields”, M. C. Miller and D. Neuhauser 1991, *MNRAS*, **253**, 107-122.
183. “Outstanding Young Achievers- What Makes Them Tick!”, M. C. Miller 1984 Gifted Children Newsletter **10**, 15.
184. “A Mathematical Analysis of Generalized Mass Action”, M. C. Miller 1983 Journal of Undergraduate Mathematics **15**, 57.

Unrefereed Articles

1. “Multidisciplinary Science in the Multimessenger Era”, E. Burns et al., Third Time-Domain And Multimessenger Astrophysics workshop, arXiv:2502.03577.
2. “Searching for phase transitions in neutron stars with modified Gaussian processes”, D. Mroczek, M. C. Miller, J. Noronha-Hostler, and N. Yunes, Proceedings of the CSQCD IX meeting, arXiv:2302.07978.
3. “Long Range Plan: Dense matter theory for heavy-ion collisions and neutron stars”, A. Lovato et al., White Paper for the Long Range Plan for Nuclear Science (arXiv:2211.02224).
4. “Snowmass 2021 Cosmic Frontier White Paper: The Dense Matter Equation of State and QCD Phase Transitions”, S. Bogdanov et al. (arXiv:2209.07412).
5. “Next Generation Observatories – Report from the Dawn VI Workshop; October 5-7 2021”, D. Shoemaker et al., Proceedings of the Dawn VI Workshop (arXiv:2112.12718).
6. “Theoretical Astrophysics 2020–2030”, J. A. Kollmeier et al., white paper submitted to NASA for ASTR2020 Decadal Survey (arXiv:1912.09992).

7. “Determining the Equation of State of Cold, Dense Matter with X-ray Observations of Neutron Stars”, S. Bogdanov et al., white paper submitted to NASA for ASTR2020 Decadal Survey (arXiv:1903.04648).
8. “The unique potential of extreme mass-ratio inspirals for gravitational-wave astronomy”, C. P. L. Berry, S. A. Hughes, C. F. Sopuerta, A. J. K. Chua, A. Heffernan, K. Holley-Bockelmann, D. P. Mihaylov, M. C. Miller, and A. Sesana, white paper submitted to NASA for ASTR2020 Decadal Survey (arXiv:1903.03686).
9. “STROBE-X: X-ray Timing and Spectroscopy on Dynamical Timescales from Microseconds to Years”, P. S. Ray et al., white paper submitted to NASA for ASTR2020 Decadal Survey (arXiv:1903.03035).
10. “Laser Interferometer Space Antenna”, P. Amaro-Seaone et al., white paper submitted in response to the ESA L3 call for missions (arXiv:1702.00786).
11. “The LOFT perspective on neutron star thermonuclear bursts”, J. J. M. in ’t Zand et al., white paper in support of the mission concept of the Large Observatory for X-ray Timing (arXiv:1501.02776).
12. “The Large Observatory for X-ray Timing”, M. Feroci et al., *Proceedings of SPIE 9144, Space Telescopes and Instrumentation*, submitted (arXiv:1408.6526).
13. “Relativistic Astrophysics at GR20”, I. Mandel, M. C. Miller, B. Ahmedov, C. Bambi, C. P. L. Berry, J. Brink, D. Brown, E. Chaverra, A. I. Chugunov, S. Fairhurst, C. Fryer, J. R. Gair, D. Gondek-Rosinska, L. Gualtieri, M. E. Gusakov, M. Hannam, I. Harry, E. M. Kantor, W. Kluzniak, M. Kucaba, G. Lukes-Gerakopoulos, H. Meheut, A. Melatos, V. S. Morozova, T. Paumard, N. Stergioulas, A. Studzinska, M. Szkudlarek, O. Straub, G. Torok, P. Varniere, F. H. Vincent, M. Wisniewicz, M. Wildner, C. Will, K. Yagi, O. Zanotti, and S.-Y. Zhou, *General Relativity and Gravitation*, **46**, p. 1
14. “Challenges in the Measurement of Neutron Star Radii”, M. C. Miller, to be published in proceedings of the XXXI Max Born Symposium, Wroclaw, Poland, 14-16 June, 2013
15. “Constraining Neutron Star Masses and Radii Using Thermonuclear X-ray Bursts”, M. C. Miller, S. Boutloukos, K. H. Lo, and F. K. Lamb 2013, in proceedings of IAU Symposium 290, p. 101
16. “Detecting Coalescences of Intermediate-Mass Black Holes in Globular Clusters with the Einstein Telescope”, I. Mandel, J. R. Gair, and M. C. Miller 2012, in proceedings of the 12th Marcel Grossmann Meeting, Paris, p. 1676, arXiv:0912.4925
17. “Gamma-Ray Pulsar Light Curves in Vacuum and Force-Free Geometry”, A. K. Harding, M. E. DeCesar, M. C. Miller, C. Kalapotharakos, and I. Contopoulos 2011, in proceedings of the 2011 Fermi Symposium, arXiv:1111.0828
18. “Pulsar Emission Geometry and Accelerating Field Strength”, M. E. DeCesar, A. K. Harding, M. C. Miller, I. Contopoulos, C. Kalapotharakos, and D. Parent, in proceedings of the 2011 Fermi Symposium, arXiv:1111.0325
19. “Implications of High-Precision Spectra of Thermonuclear X-ray Bursts for Determining Neutron Star Masses and Radii”, M.C. Miller, S. Boutloukos, K.H. Lo, and F.K. Lamb 2011, in Proceedings of Science, id. 24, arXiv:1105.2030
20. “Probing Stellar Dynamics in Galactic Nuclei”, M. C. Miller, T. Alexander, P. Amaro-Seaone, A. J. Barth, C. Cutler, J. R. Gair, C. Hopman, D. Merritt, E. S. Phinney, and D. O. Richstone 2009, science white paper submitted to Astro2010: The Astronomy and Astrophysics Decadal Survey, arXiv:0903.0285
21. “X-ray Timing of Neutron Stars, Astrophysical Probes of Extreme Physics”, Z. Arzoumanian, S. Bogdanov, J. Cordes, K. Gendreau, D. Lai, J. Lattimer, B. Link, A. Lommen, C. Miller, P. Ray, R. Rutledge, T. Strohmayer, C. Wilson-Hodge, & K. Wood 2009, science white paper submitted to Astro2010: The Astronomy and Astrophysics Decadal Survey, arXiv:0902.3264
22. “Science with the XEUS High Time Resolution Spectrometer”, D. Barret, T. Belloni, S. Bhattacharyya, E. Cackett, M. Gilfanov, E. Gigus, J. Homan, M. Mendez, J. M. Miller, M. C. Miller, S. Mereghetti, S. Paltani, J. Poutanen, J. Wilms, & A. A. Zdziarski 2008, in proceedings of the SPIE meeting, Marseille (in press)
23. “Constraints on Superdense Matter from X-ray Binaries”, M. C. Miller 2006, in proceedings of the NATO Advanced Workshop “Superdense QCD Matter and Compact Stars”, Yerevan, Armenia, September 27 – October 4, 2003, ed. D. Blaschke (Springer: Dordrecht), pg. 23.

24. “QPO Constraints on Neutron Stars”, M. C. Miller, in proceedings of “A Life With Stars”, conference in honor of E. van den Heuvel, Amsterdam, Netherlands, 22–26 August 2005.
25. “Surface Atomic Spectral Lines from Weakly Magnetic Rotating Neutron Stars”, S. Bhattacharyya, M. C. Miller, & F. K. Lamb 2004, in proceedings of the workshop “X-ray Diagnostics for Astrophysical Plasmas: Theory, Experiment, and Observation”, Cambridge, MA, 15–17 November 2004, ed. R. Smith.
26. “Quasi-Periodic Brightness Oscillations from Accreting Neutron Stars and Black Holes”, M. C. Miller 2004, in proceedings of the summer school “Hot Points in Astrophysics and Cosmology”, Dubna, Russia, August 1-14, 2004, eds. V. Belyaev and D. Blaschke, in press.
27. “Implications of Intermediate-Mass Black Holes for Gravitational Radiation”, M. C. Miller & E. J. M. Colbert 2004, in proceedings of the Tenth Marcel Grossmann Meeting on General Relativity, Rio de Janeiro, July 20-26, 2003, eds. M. Novello, S. Perez-Bergliaffa and R. Ruffini, World Scientific, Singapore, 1349
28. “Observational Evidence for Intermediate-Mass Black Holes in Ultra-luminous X-ray Sources”, E. J. M. Colbert & M. C. Miller 2004, in proceedings of the Tenth Marcel Grossmann Meeting on General Relativity, Rio de Janeiro, July 20-26, 2003, eds. M. Novello, S. Perez-Bergliaffa and R. Ruffini, World Scientific, Singapore, 530 (astro-ph/0402677).
29. “Interpreting QPOs from Accreting Neutron Stars”, M. C. Miller, in proceedings of the workshop “X-Ray Timing 2003: Rossi and Beyond”, Boston, MA, November 3-5, 2003, eds. P. Kaaret, F. K. Lamb, and J. H. Swank, astro-ph/0312449.
30. “Proposal to do Fast X-ray Timing With XEUS”, R. Staubert, Kendziorra, E., Barret, D., Skinner, G. K., Lechner, P., Stroeder, L., van der Klis, M., Stella, L., & Miller, M. C. 2003, X-Ray and Gamma-Ray Telescopes and Instruments for Astronomy, Proceedings of the SPIE, eds. J. E. Treumper and H. D. Tananbaum, vol. 4851, pp. 414-420 (2003).
31. “Three-Body Encounters of Black Holes in Globular Clusters”, K. Gültekin, M. C. Miller, & D. P. Hamilton, in proceedings of the workshop “The Astrophysics of Gravitational Wave Sources”, College Park, MD, April 24-26, 2003, ed. J. Centrella (Melville, NY: AIP), pp. 135-138 (2003), astro-ph/0306204.
32. “Formation Scenarios for Intermediate-Mass Black Holes”, M. C. Miller, in proceedings of the workshop “The Astrophysics of Gravitational Wave Sources”, College Park, MD, April 24-26, 2003, ed. J. Centrella (Melville, NY: AIP), pp. 125-134 (2003), astro-ph/0306173.
33. “A Fast X-ray Timing Capability on XEUS”, D. Barret, G. Skinner, E. Kendziorra, R. Staubert, P. Lechner, L. Struder, M. van der Klis, L. Stella, and M. C. Miller, proceedings of the workshop “XEUS-studying the evolution of the hot universe”, Garching, March 11-13, 2002, eds. G. Hasinger, Th. Boller and A. Parmar, MPE report (astro-ph/0206028).
34. “Small-Scale Structure Deduced from X- and γ -ray Timing Measurements”, M. C. Miller, in *IAU Symposium 205: Galaxies and Their Constituents at the Highest Angular Resolution*, eds. R. T. Schilizzi, S. N. Vogel, R. Paresce, and M. S. Elvis (San Francisco: ASP), pp. 244-251 (2001) (astro-ph/0012043).
35. “Beat-Frequency Models of Kilohertz QPOs”, M. C. Miller, in *AIP Conference Proceedings 599: Stellar Endpoints, AGN, and the Diffuse X-ray Background*, eds. N. E. White, G. Malaguti, and G. G. C. Palumbo (Melville, NY: AIP), p. 229 (2001) (astro-ph/0007287).
36. “Extracting Neutron Star Properties from X-ray Burst Oscillations”, N. Weinberg, M. C. Miller, and D. Q. Lamb, in *Cosmic Explosions*, proc. of the 10th Annual October Astrophysics Conference, eds. S. S. Holt and W. Zhang, pp. 371-374 (2000) (astro-ph/9912361).
37. “Gravitational Lensing and the Hubble Deep Field”, A. R. Cooray, J. M. Quashnock, and M. C. Miller, in *After the Dark Ages: When Galaxies Were Young*, proc. of the 9th Annual October Astrophysics Conference, eds. S. S. Holt and E. P. Smith, pp. 180-183 (1999) (astro-ph/9811115).
38. “The Origin of Kilohertz QPOs and Implications for Neutron Stars”, F. K. Lamb, M. C. Miller, and D. Psaltis, in *Neutron Stars and Pulsars: Thirty Years After the Discovery*, ed. N. Shibasaki et al. (Tokyo: University Academy Press), p. 89 (1999) (astro-ph/9803263).
39. “Constraints on Neutron Star Matter From Kilohertz QPOs”, F. K. Lamb, M. C. Miller, and D. Psaltis, in *Nuclear Astrophysics*, Proc. International Workshop XXVI on Gross Properties of Nuclei and Nuclear

- Excitations, ed. M. Buballa, W. Nörenberg, J. Wambach, & A. Wirzba (GSI: Darmstadt), 114 (1998). (astro-ph/9802348)
40. “Rapid X-ray Variability of Neutron Stars in Binary Systems”, F. K. Lamb, M. C. Miller, and D. Psaltis, in *The Active X-ray Sky*, eds. L. Scarsi, H. Bradt, P. Giommi, and F. Fiore (Amsterdam: Elsevier), p. 113 (1998) (astro-ph/9802089).
 41. “Constraints on the equation of state of neutron star matter from observations of kilohertz QPOs”, M. C. Miller, F. K. Lamb, and D. Psaltis, in *The Active X-ray Sky*, eds. L. Scarsi, H. Bradt, P. Giommi, and F. Fiore (Amsterdam: Elsevier), p. 123 (1998) (astro-ph/9802089).
 42. “Constraints on Neutron Star Masses and Radii from Kilohertz QPOs”, F. K. Lamb, M. C. Miller, and D. Psaltis, in *AIP Conference Proceedings 431: Accretion Processes in Astrophysical Systems*, eds. S. Holt and T. Kallman, pp. 389-392 (1998) (astro-ph/9712277).
 43. “Models of Kilohertz Quasi-Periodic Brightness Oscillations”, M. C. Miller, in *AIP Conference Proceedings 431: Accretion Processes in Astrophysical Systems*, eds. S. S. Holt and T. R. Kallman, pp. 371-380 (1998) (astro-ph/9712268).
 44. “Sonic-Point Model for High-Frequency QPOs in Neutron Star Low-Mass X-ray Binaries”, M. C. Miller, F. K. Lamb, and D. Psaltis, in *Proceedings of the 18th Texas Symposium on Relativistic Astrophysics*, eds. A. Olinto, J. Frieman, and D. Schramm (World Scientific), 761-763 (1998) (astro-ph/9702090).
 45. “Effects of Radiation Forces on Disk Accretion”, F. K. Lamb and M. C. Miller, in *Physics of Accretion Disks: Advection, Radiation, & Magnetic Fields*, eds. S. Kato, S. Inagaki, S. Mineshige, and J. Fukue (Amsterdam: Gordon & Breach), 197 (1996).
 46. “Compton Scattering Effects in the Spectra of Soft Gamma-Ray Repeaters”, M. C. Miller and T. Bulik, in *Gamma-Ray Bursts, Third Workshop*, eds. C. Kouveliotou, M. F. Briggs, and G. J. Fishman (AIP Press), pp. 956-960 (1996).
 47. “Gamma-Ray Production by Neutron Stars Accreting From a Disk”, M. C. Miller, F. K. Lamb, and R. J. Hamilton, in *AIP Conference Proceedings 280: Compton Gamma-Ray Observatory*, St. Louis, Missouri, eds. M. Friedlander, N. Gehrels, and D. J. Macomb (AIP Press), pp. 433-437 (1993).
 48. “Acceleration of Particles in the Magnetospheres of Accreting Neutron Stars”, R. J. Hamilton, F. K. Lamb, and M. C. Miller, in *AIP Conference Proceedings 280: Compton Gamma-Ray Observatory*, St. Louis, Missouri, eds. M. Friedlander, N. Gehrels, and D. J. Macomb (AIP Press), pp. 438-442 (1993).
 49. “Electrodynamics of Neutron Stars Accreting From a Disk”, F. K. Lamb, R. J. Hamilton, and M. C. Miller, in *AIP Conference Proceedings 280: Compton Gamma-Ray Observatory*, St. Louis, Missouri, eds. M. Friedlander, N. Gehrels, and D. J. Macomb (AIP Press), pp. 443-447 (1993).
 50. “Particle Acceleration and Gamma-Ray Emission From Accreting Neutron Stars”, F. K. Lamb, R. J. Hamilton, and M. C. Miller, in *Isolated Pulsars*, Taos, New Mexico, eds. K. Van Riper, R. Epstein, and C. Ho (Cambridge U. Press), pp. 364-371 (1993).
 51. “Thermal Emission From Isolated Neutron Stars”, M. C. Miller, in *Isolated Pulsars*, Taos, New Mexico, eds. K. Van Riper, R. Epstein, and C. Ho (Cambridge U. Press), pp. 153-159 (1993).

Popular Articles

1. “A Golden Binary”, M. C. Miller 2017, *Nature News and Views*, **551**, 36-37.
2. “Gravitational Waves: Dawn of a New Astronomy”, M. C. Miller 2016, *Nature News and Views*, **531**, 40.
3. “Weighing in on Neutron Stars”, M. C. Miller 2010, *Nature News and Views*, **467**, 1057-1058.
4. “A Happy Medium”, M. C. Miller 2009, *Nature Physics News and Views*, **5**, 537-538.
5. Nature Journal Club, on hypervelocity stars, *Nature*, 31 August 2006, **442**, 961.
6. “Supermassive Black Holes: Shaping Their Surroundings”, M. C. Miller, C. S. Reynolds, and A. Krishnamurthi, *Sky and Telescope*, April 2005, 42-47.
7. “Twinkle, Twinkle, Neutron Star”, M. C. Miller 2002, *Nature News and Views*, **420**, 31-33.

International Astronomical Union Circulars

Curriculum Vitae of M. Coleman Miller, Page 31

1. "GRO J1744-28: no source brightening in XTE error box", M. C. Miller, J. M. Quashnock, D. M. Cole, D. E. Vanden Berk, D. Q. Lamb, R. C. Nichol, and D. Long 1996, IAUC 6293
2. "GRO J1744-28: optical measurements and possible brightening in R of IAUC 6309 optical source", D. M. Cole, D. E. Vanden Berk, S. A. Severson, R. C. Nichol, M. C. Miller, J. M. Quashnock, D. Q. Lamb, E. Bergeron, K. Gloria, and D. Long 1996, IAUC 6310
3. "GRO J1744-28: r-band photometry; identification of stars A-D and 'a' ", D. E. Vanden Berk, S. A. Severson, D. M. Cole, D. Q. Lamb, M. C. Miller, R. C. Nichol, J. M. Quashnock, E. Bergeron, K. Gloria, and D. Long 1996, IAUC 6315
4. "GRO J1744-28: detailed optical astrometry in the vicinity of the VLA source", D. M. Cole, D. E. Vanden Berk, R. C. Nichol, J. M. Quashnock, S. A. Severson, M. C. Miller, and D. Q. Lamb 1996, IAUC 6356