Curriculum Vitae: M. Coleman Miller

Date of Birth: 6 July 1968
Place of Birth: Detroit, MI
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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 -	Professor of Astronomy, University of Maryland
2020	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

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), 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).

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 85 students. Postdoctoral advisor for Sudip Bhattacharyya and Stratos Boutloukos, 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, Bryan Holler, Ben Johanson, Ashley King, Kalman Knizhnik, Scott Lawrence, Jennifer Liang, Nick Magnelli, Brian Prager, Shawn Rosofsky, 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

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
2012	Simons sabbatical fellowship, for the study of electromagnetic counterparts to supermassive 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 Cosmology (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

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 Development 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 (including 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 University Press and Oxford University Press

Presentations

1. "The EMRI-TDE connection", invited talk, Loss cones in Como meeting, Como, Italy, 8 February 2024
2. "Learning about nuclear physics from neutron star observations", astronomy colloquium, Radboud University, 28 November 2023
3. "Learning about fundamental physics using black hole observations", invited talk, Dutch Black Hole Consortium meeting, Radboud University, 17 November 2023
4. "Neutron stars, the high-density equation of state, and NICER", invited talk, Physics of Neutron Stars meeting, University of Maryland, 27 October 2023
5. "Neutron Star Observations and Dense Matter", invited talk, Modern Physics of Compact Stars meeting, Yerevan, Armenia, 12 September 2023
6. "A NICER View of Neutron Stars", physics colloquium, University of Virginia, 8 September 2023
7. "Neutron Star Cooling", invited talk, Aspen Center for Physics, 24 July 2023
8. "PREX/CREX and Astronomical Observations of Neutron Stars", invited talk, Jefferson Laboratory Hall A/C meeting, 30 June 2023
9. "Understanding dense matter using NICER observations", physics colloquium, Texas A&M, 19 January 2023
10. "Neutron Stars and Nuclear Physics", invited talk to the Physical Review, 1 December 2022
11. "Measuring Neutron Stars", colloquium, symposium in honor of Mal Ruderman, Columbia, 31 October 2022
12. "Electromagnetic Observations of Neutron Stars", invited talk, The Future of Neutron Rich Matter, Amherst, MA, 13 October 2022
13. "Measurements of Neutron Stars and Clues to the Nature of Dense Matter", invited talk, Brazilian Physical Society Spring Meeting, Natal, Brazil, 26 September 2022
14. "Tidal disruptions and EMRIs from tidal separation of binaries", invited talk, TDEs and EMRIs dynamics, Como, Italy, 6 September 2022
15. "NICER Measurements and Implications for Dense Matter", invited talk, CSQCD, Banff, Canada, 5 August 2022
16. "X-ray Measurements of Neutron Star Masses and Radii", invited talk, IAU general assembly, Busan, South Korea, 5 August 2022
17. "Learning about dense matter from gravitational waves", invited talk, PAX22 meeting, MIT, 2 August 2022
18. "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
19. "Clues to the properties of dense matter using NICER observations", physics colloquium, University of Illinois, 9 February 2022
20. "Learning About Dense Matter from Astronomical Observations", seminar, nuclear theory group, University of Maryland, 9 December 2021
21. "Taking the Measure of Neutron Stars with NICER", colloquium, California State University at Long Beach, 18 October 2021
22. "A NICER Path to Neutron Star Radii", colloquium, University of Chicago, 13 October 2021
23. "NICER and Neutron Star Radii", invited talk, Modern Physics of Compact Stars, 27 September 2021
24. "Neutron Star Measurements with NICER", invited talk, International Symposium on Nuclear Symmetry Energy, 23 September 2021
25. "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
26. "Implications of Neutron Star Radius Measurements Using NICER", astrophysics seminar, Los Alamos National Laboratory, 2 September 2021

27. "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
28. "Measuring the Radii of Neutron Stars", colloquium, Aspen Center for Physics, 1 July 2021
29. "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
30. "Learning about neutron stars with NASA's NICER mission", IAG-USP Astronomy seminar, University of São Paulo, 12 May 2021
31. "NICER Measurements of Pulsars PSR J0030+0451 and PSR J0740+6620", S@INT seminar, Institute for Nuclear Theory, University of Washington, 22 April 2021
32. "NICER Constraints on the Neutron Star Equation of State", invited talk, American Physical Society meeting, 17 April 2021
33. "NICER, Gravitational Waves, and Neutron Stars", nuclear theory seminar, Arizona State University, 23 September 2020
34. "Learning About Dense Matter from Neutron Stars", nuclear theory seminar, University of Minnesota Twin Cities, 22 September 2020
35. "Learning About Dense Matter Using NICER", invited talk, Compact Stars and Quantum Chromodynamics meeting, 17 August 2020
36. "What Can We Learn From Gravitational-Wave Observations?", invited talk, European Astronomical Society meeting, 3 July 2020
37. "The Insides of Neutron Stars", astrophysics seminar, Center for Computational Astrophysics, Flatiron Institute, 16 April 2020
38. "A NICER Measurement of a Neutron Star", astronomy colloquium, Radboud University, 10 March 2020
39. "Extremal Principles in Physics", astronomy theory seminar, Radboud University, 19 February 2020
40. "A NICER View of a Neutron Star", astronomy colloquium, University of Maryland, 29 January 2020
41. "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
42. "A NICER View of a Neutron Star", strong gravity seminar, Perimeter Institute, 12 December 2019
43. "Multiscale Applications of Gravitational-Wave Physics", astronomy seminar, University of Michigan, 26 November 2019
44. "Exploring the Interiors of Neutron Stars", physics colloquium, University of Guelph, 12 November 2019
45. "Unveiling the Interiors of Neutron Stars", nuclear physics seminar, Ohio University, 29 October 2019
46. "What We Do and Do Not Know About Neutron Star Cores", strong gravity seminar, Perimeter Institute, 25 September 2019
47. "Gravity in Astrophysics", invited talk, Precision Gravity: from the LHC to LISA, Munich Institute for Astrophysics and Particle Physics, Garching, Germany, 5 September 2019
48. "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
49. "Spilling the Guts of Neutron Stars", invited talk, Nordita, Stockholm, Sweden, 16 August 2019
50. "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
51. "Constraining the High-Density Equation of State with Astronomical Observations", invited talk, Merging Visions, Kavli Institute of Theoretical Physics, 26 June 2019
52. "Understanding the Interiors of Neutron Stars", KIPAC astronomy colloquium, Stanford University, 23 May 2019
53. "Peering Inside Neutron Stars", astronomy colloquium, University of Maryland, 1 May 2019

54. "What can Gravitational Waves Tell Us About the Assembly of Supermassive Black Holes?", invited talk, American Astronomical Society meeting, Seattle, Washington, 7 January 2019
55. "LISA in the Extreme", physics colloquium, Montana State University, 2 November 2018
56. "Frontiers in Black Hole Astrophysics", invited review, Unsolved Problems in Astrophysics and Cosmology, Budapest, Hungary, 2 July 2018
57. "Extreme and Intermediate-mass Black Hole Inspirals", invited talk, 21st Capra meeting, Golm, Germany, 28 June 2018
58. "What can NS Mergers Tell Us About Dense Matter?", invited talk, Compact Stars and QCD, New York, NY, 13 June 2018
59. "Arguments For and Against Intermediate-Mass Black Holes", invited talk, APS April Meeting, Columbus, Ohio, 17 April 2018
60. "Could Dark Matter Consist of Primordial Black Holes?", physics seminar, University of São Paulo, São Paulo, Brazil, 21 March 2018
61. "Neutron Stars Going Bump in the Night", cosmology seminar, Johns Hopkins University, 16 November 2017
62. "When Neutron Stars Collide", astrophysics theory seminar, University of Florida, 25 October 2017
63. "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
64. "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
65. "Putting a Spin on Stellar-Mass Black Holes", astronomy seminar, Penn State, 1 September 2017
66. "Basics of Magnetic Accretion", invited talk, High Energy Astrophysics Division meeting, Sun Valley, Idaho, 24 August 2017
67. "Systematics in Mass and Radius Measurements Using NICER data", invited talk, eXtreme Matter meets eXtreme Gravity, Bozeman, Montana, 18 August 2017
68. "Neutron Star Measurements Using X-rays and Gravitational Waves", colloquium, Instituto Nacional de Pesquisas Espaciais, São José dos Campos, Brazil, 9 August 2017
69. "Astrophysical Implications of LIGO's Gravitational Wave Detections", invited talk, The Physics of Extreme-Gravity Stars, Nordita, Stockholm, Sweden, 21 June 2017
70. "NICER overview and Status", invited talk, Nuclear Astrophysics in the Gravitational Wave Era, Trento, Italy, 13 June 2017
71. "Neutron Star Measurements Using X-rays and Gravitational Waves", invited talk, Nuclear Astrophysics in the Gravitational Wave Era, Trento, Italy, 13 June 2017
72. "Black Holes and Revelations: Gravitational Wave Detections", physics colloquium, University of Iceland, Reykjavik, Iceland, 29 May 2017
73. "The Wave of the Future", astronomy colloquium, University of São Paulo, 22 March 2017
74. "How to Tell When You've Busted CDM", physics colloquium, MIT, 18 October 2016
75. "CDM vs. Perceived Structure", astronomy seminar, Johns Hopkins University, 10 October 2016
76. "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
77. "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
78. "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
79. "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

80. "Systematic Errors in Neutron Star Radius Measurements", invited talk, Neutron Stars in the Multi-Messenger Era, Ohio University, 25 May 2016
81. "The Wave of the Future", physics colloquium, University of Maryland, Baltimore County, 27 April 2016
82. "A New Method for Finding Point Sources in High-energy Neutrino Data", ITC lunchtime seminar, Harvard, 21 April 2016
83. "GW, short γ-ray bursts, and constraints on NS matter", ITC colloquium, Harvard, 21 April 2016
84. "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
85. "The Era of Gravitational-Wave Astronomy", astronomy seminar, University of Michigan, 18 March 2016
86. "Short GRBs and the Maximum Mass of Neutron Stars", astronomy colloquium, University of Michigan, 17 March 2016
87. "The Implications of GW150914", physics seminar, Hillsdale College, 14 March 2016
88. "Neutron Star Upper Mass Limits from GRBs and GWs", physics colloquium, Texas Tech University, 25 February 2016
89. "Standard Channels for Binary Formation", invited talk, Rapid-Fire Workshop on Compact Binary Mergers, Columbia University, 20 February 2016
90. "The Discovery of Gravitational Waves: GW at GW", physics seminar, George Washington University, 16 February 2016
91. "Learning about Neutron Star Matter from X-rays and Gravitational Waves", invited talk, The Many Faces of Neutron Stars, Garching, Germany, 14 September 2015
92. "Systematics and Statistics for NICER Determination of Neutron Star Masses and radii", invited talk, Extreme Gravity Workshop, Bozeman, Montana, 20 August 2015
93. "The Challenges of Determining Neutron Star Masses and Radii", invited talk, The Neutron Star Radius and All That Jazz, Montreal, Canada, 2 July 2015
94. "Constraints on the Dense Matter EOS from Burst Oscillations", invited talk, Forty Years of X-ray Bursts, Madrid, Spain, 18 June 2015
95. "Neutron Star Upper Mass limits from GRBs and GWs", contributed talk, What Comes Next for LIGO?, Silver Spring, MD, 7 May 2015
96. "Measurements, Causes, and Effects of Black Hole Spin", invited talk, Compact Objects as Astrophysical and Gravitational Probes, Leiden, Netherlands, 5 February 2015
97. "Gravitational Wave Detection of Massive Stellar BH Binaries", invited talk, Aspen meeting on black holes in dense star clusters, Aspen, CO, 22 January 2015
98. "Determining Neutron Star Masses and Radii using NICER Energy-Resolved Waveform Data", contributed talk, AAS meeting, Seattle, 6 January 2015
99. "Black Hole Astrophysics", invited talk, GR@99, Bad Honnef, Germany, 18 September 2014
100. "Challenges in Measuring Neutron Star Radii", colloquium, Tuorla Observatory, University of Turku, Finland, 12 August 2014
101. "Alignment of Supermassive Black Hole Binary Orbits and Spins", invited talk, COSPAR meeting, Moscow, Russia, 6 August 2014
102. "Challenges in Measuring Neutron Star Radii", invited talk, workshop on Binary Neutron Star Coalescence as a Fundamental Physics Laboratory, Seattle, Washington, 15 July 2014
103. "Supermassive Black Hole Binaries: The Case for Aligned Spins", invited talk, workshop on Unsolved Problems in Astrophysics and Cosmology, Budapest, Hungary, 5 July 2014
104. "Physics with Gravitational Wave Detections", invited talk, Aspen workshop on ultracompact binaries, Aspen, Colorado, 13 June 2014
105. "Gravitational Waves and the Joint Space-Science Institute", presentation to congressional staffers, University of Maryland, 17 April 2014
106. "Lemming Black Holes", astronomy colloquium, McGill University, 15 April 2014

107. "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
108. "Lemming Black Holes", astronomy colloquium, Radboud University, Nijmegen, the Netherlands, 1 April 2014
109. "Mass-Radius Constraints for NS from Pulse Profile Modeling", invited talk, Joint Space-Science Institute minisymposium, Goddard Space Flight Center, 27 March 2014
110. "Ways to Measure Neutron Star Radii", invited presentation, workshop on the structure and signals of neutron stars, Florence, Italy, 19 March 2014
111. "Neutron Stars and Very Dense Matter", seminar, Case Western Reserve University, 5 March 2014
112. "Lemming Black Holes", colloquium, Case Western Reserve University, 5 March 2014
113. "Measuring the Radii of Neutron Star X-ray Bursters with NICER", invited talk, American Astronomical Society meeting, Washington, DC, 8 January 2014
114. "Formation of Black Hole Seeds by Core Collapse", invited talk, Astro-GR@Atlanta, Atlanta, Georgia, 18 November 2013
115. "Current Challenges in the Astrophysics of Neutron Stars and Black Holes", Rowan University physics colloquium, 27 September 2013
116. "Neutron Stars and Their Planets", Goddard Space Flight Center Astrophysics Colloquium, 27 August 2013
117. "The Universe of Black Holes that will be Revealed with Gravitational Waves", Blackboard Lunch talk, Kavli Institute of Theoretical Physics, 19 August 2013
118. "Alignment of the Spins of Supermassive Black Hole Binaries", invited talk, A Universe of Black Holes, Kavli Institute of Theoretical Physics, 16 August 2013
119. "Systematics in Measurements of Neutron Star Radii", invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 20 June 2013
120. "Intermediate-Mass Black Holes", invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 19 June 2013
121. "Gravitational Wave Radiation and Sources", invited talk, Netherlands Institute for Space Research, Utrecht, Netherlands, 18 June 2013
122. "Challenges in the Measurement of Neutron Star Radii", invited talk, Max Born Symposium, Wrocław, Poland, 15 June 2013
123. "How Well Can We Measure Neutron Star Radii?", invited talk, University of Wrocław, Poland, 13 June 2013
124. "Electromagnetic Counterparts to High-Frequency Gravitational Wave Sources", invited talk, Science from the First Gravitational Wave Detections, 23 May 2013, South Padre Island, Texas
125. "How Can We Measure Neutron Star Radii?", invited seminar, Canadian Institute for Theoretical Astrophysics, 29 April 2013, Toronto, Canada
126. "The Dynamics of Galactic Nuclei", invited review talk, Black Hole Fingerprints, 20 March 2013, Snowbird, Utah
127. "Neutron Stars and Physical Extremes", astronomy colloquium, Universidad de Chile, 14 March 2013
128. "Hearing the Universe with Gravitational Waves", astronomy colloquium, Pontifica Universidad Católica de Chile, 12 March 2013
129. "The Difficulties and Rewards of Neutron Star Radii", astronomy seminar, Pontifica Universidad Católica de Chile, 11 March 2013
130. "The Near Future of Gravitational Wave Detection", astronomy colloquium, Universidade Federal do ABC, São Paulo, Brazil, 7 March 2013
131. "Neutron Stars and the Unknowns of Dense Matter", astronomy colloquium, Universidad Nacional de La Plata, Argentina, 5 March 2013
132. "The Universe As Heard With Gravitational Waves", astronomy colloquium, Instituto de Astronomía y Física del Espacio, University of Buenos Aires, Argentina, 4 March 2013

133. "Planets Around Neutron Stars", invited talk, AAS Meeting, Long Beach, CA, 10 January 2013
134. "Fermi Synergies with Advanced LIGO", invited talk, Fermi Symposium, Monterey, CA, 30 October 2012
135. "How Accretion Disks Wiggle", CAS seminar, Johns Hopkins University, 9 October 2012
136. "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
137. "Using Thermonuclear Burst Spectra to Constrain NS Masses and Radii", invited talk, IAU General Assembly, Beijing, China, 20 August 2012
138. "Neutron Stars and the Extremes of Matter", colloquium, Yonsei University, Seoul, South Korea, 16 August 2012
139. "The Promise of Gravitational Waves", colloquium, Seoul National University, 14 August 2012
140. "So What Happens When We Detect GWs from CBCs?", invited talk, Rattle and Shine conference, Kavli Institute for Theoretical Physics, 3 August 2012
141. "The Implications of Neutron Star Observations for Dense Matter", plenery talk, CompStar meeting, Tahiti, 7 June 2012
142. "Gravitational Wave Sources from a few Hz to a few kHz", invited talk, Gravitational Wave Advanced Detector Workshop, Waikoloa Beach, HI, 14 May 2012
143. "The Implications of kHz QPOs", invited talk, 16 Years of Discovery with RXTE, Goddard Space Flight Center, 30 March 2012
144. "Planets in the Extreme Environments of Neutron Stars", invited talk, Planets around Stellar Remnants, Arecibo Observatory, Puerto Rico, 26 January 2012
145. "Lemming Black Holes", University of California at Santa Cruz astronomy colloquium, 23 November 2011
146. "The Connection of LIGO to Astrophysics", invited talk, Gravitational Wave Open Data Workshop, Livingston, LA, 27 October 2011
147. "Lemming Black Holes", Howard University physics colloquium, 12 October 2011
148. "Galactic Centers: it's a Binary's Life", invited talk, Astro-GR conference, Palma de Mallorca, Spain, 9 September 2011
149. "Using Thermonuclear Burst Spectra to Constrain Neutron Star Masses and Radii", invited talk, Astrophysical Transients workshop, University of Washington, 18 July 2011
150. "Tidal Disruption of Tidally Separated Binaries", invited seminar, Aspen workshop on low-mass and intermediate-mass black holes, Aspen, CO, 7 June 2011
151. "The Spins of Supermassive Black Holes", invited seminar, Aspen workshop on supermassive black holes, Aspen, CO, 1 June 2011
152. "Middleweight Black Holes", general relativity seminar, University of Maryland, 4 May 2011
153. "Probing NS EOS and Synergy with Advanced LIGO and Virgo", invited talk, International X-ray Observatory meeting, Rome, Italy, 16 March 2011
154. "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
155. "Using Gravitational Waves to Constrain Neutron Star Structure", general relativity seminar, Penn State, 15 February 2011
156. "New Results on the X-ray Spectra of Thermonuclear Bursts", invited talk, HTRS meeting, Champéry, Switzerland, 9 February 2011
157. "Learning about Dense Matter from Neutron Stars", astronomy colloquium, University of British Columbia, 10 January 2011
158. "Neutron Stars and the Extremes of Matter", invited talk, III Challenges workshop, Campos do Jordao, Brazil, 16 December 2010
159. "Introduction to Gravitational Radiation", invited talk, III Challenges workshop, Campos do Jordao, Brazil, 13 December 2010

160. "X-ray Burst Spectra", invited talk, Exploring Physics with Neutron Stars, Tucson, Arizona, 19 November 2010
161. "A Possible Explanation for Puzzling Properties of X-ray Bursts", astronomy colloquium, Caltech, 20 October 2010
162. "Dynamical processes in the production of EMRIs", invited talk, LISA-GR meeting, Paris, France, 17 September 2010
163. "Putting a spin on supermassive black holes", astronomy seminar, University of Melbourne, 11 August 2010
164. "What do we know about black holes?", astronomy seminar, Monash University, Melbourne, Australia, 10 August 2010
165. "AIGO and the structure of neutron stars", astrophysics seminar, University of Western Australia, 6 August 2010
166. "Astrophysics with gravitational waves", IAS masterclass, University of Western Australia, 5 August 2010
167. "Formation of stellar-mass black hole binaries", invited talk, 460th Heraeus symposium, on black holes, Bad Honnef, Germany, 11 June 2010
168. "Learning about neutron stars with LIGO", LIGO seminar, Caltech, 20 April 2010
169. "Probing the high-density matter of neutron stars", ITC colloquium, Harvard, 1 April 2010
170. "Introduction to gravitational radiation", invited talk, Advanced gravitational wave detectors and Advanced LIGO technology, Perth, Australia, 28 February 2010
171. "Astrophysical Influences on the Spins of Supermassive Black Holes", colloquium, Naval Research Laboratory, Washington, DC, 25 February 2010
172. "Astrophysical Sources for Ground-Based Gravitational Wave Detectors", invited talk, Advanced gravitational wave detectors and Advanced LIGO technology, Perth, Australia, 23 February 2010
173. "Prospects for gravitational wave detection", invited talk, Probing Strong Gravity Near Black Holes, Prague, Czech Republic, 18 February 2010
174. "Extreme mass ratio inspirals", invited talk, Stars and Singularities, Rehovot, Israel, 10 December 2009
175. "Neutron stars, high densities, and nuclear physics", physics colloquium, Wake Forest University, 4 November 2009
176. "Observations of Black Holes", invited talk, Shining Light on Black Holes, Ann Arbor, MI, 25 September 2009
177. "Signatures of Kicked Disks and Mass Loss", invited talk, Matter and Electromagnetic Fields in Strong Gravity, College Park, MD, 27 August 2009
178. "Compact Binaries", invited talk, Fujihara Seminar, Hayama, Japan, 27 May 2009
179. "Astrophysics With Few-Hz Gravitational Waves", invited talk, GWADW meeting, Ft. Lauderdale, FL, 11 May 2009
180. "Astrophysical Influences on the Spins of Supermassive Black Holes", invited talk, Observational Signatures of Black Hole Mergers, Space Telescope Science Institute, 1 April 2009
181. "Intermediate-Mass Black Holes", Blackboard Lunch talk, Kavli Institute of Theoretical Physics, 23 March 2009
182. "The Spins and Eccentricities of Comparable-mass Black Hole Binaries", TAPIR seminar, California Institute of Technology, 9 January 2009
183. "Extreme and Intermediate-Mass Ratio Inspirals", invited talk, winter AAS meeting, Long Beach, CA, 5 January 2009
184. "Properties of Comparable-Mass Black Hole Binaries", math seminar, Rochester Institute of Technology, 19 September 2008
185. "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

186. "Astrophysics with the Laser Interferometer Space Antenna", invited talk, COSPAR Scientific Assembly, Montreal, Canada, 16 July 2008
187. "Models of Kilohertz Quasi-Periodic Brightness Oscillations", invited talk, COSPAR Scientific Assembly, Montreal, Canada, 13 July 2008
188. "Intermediate-Mass Black Holes", invited talk, Seventh International LISA Symposium, Barcelona, Spain, 20 June 2008
189. "How to Make a Stellar-Mass Black Hole Merge", invited colloquium, University of Amsterdam, Amsterdam, Netherlands, 13 June 2008
190. "The Astrophysical Context of Black Hole Mergers", invited talk, APS April meeting, St. Louis, Missouri, 14 April 2008
191. "Astrophysical Consequences of Black Hole Kicks", ASD colloquium, Goddard Space Flight Center 4 March 2008
192. "The Plasma Extremes of Neutron Stars", plasma physics seminar, University of Maryland, 28 November 2007
193. "Gravitational Wave Observations as Probes of Dark Energy", invited talk, dark energy workshop, University of Maryland, 15 November 2007
194. "Off the Edge: the Innermost Stable Circular Orbit around Neutron Stars", astronomy colloquium, University of Michigan, Ann Arbor, Michigan, 13 September 2007
195. "Alignment of black holes in microquasars", Microquasar workshop, Agios Nikolaos, Crete, Greece, 4 June 2007
196. "Getting a kick out of black hole spin alignment", Lund Observatory seminar, Lund, Sweden, 31 May 2007
197. "Supermassive black hole alignment, merger, and spin kicks", astrophysics colloquium, Albert Einstein Institute, Potsdam, Germany, 25 May 2007
198. "Implications of the spin distribution of LMXBs", invited talk, workshop on neutron star populations, Green Bank, WV, 21 May 2007
199. "Intermediate-Mass Black Holes and Gravitational Radiation", astrophysics colloquium, Institute for Advanced Study, Princeton, NJ, 6 March 2007
200. "Intermediate-Mass Black Holes", astronomy colloquium, University of Virginia, Charlottesville, VA, 13 November 2006
201. "Massive Black Holes", invited review talk, LISA EMRI workshop, Golm, Germany, 18 September 2006
202. "Observations of Massive Black Holes with LISA", invited talk, LISA analysis workshop, Greenbelt, MD, 25 June 2006
203. "Compact Binaries as Sources of Gravitational Radiation", invited talk, compact objects conference, Cefalu, Sicily, 20 June 2006
204. "Ultraluminous X-ray Sources", invited talk, fourth Harvard Conference on astrophysics, Cambridge, MA, 18 May 2006
205. "Astrophysical Applications of Numerical Relativity", invited talk, AANR meeting, Guanajuato, Mexico, 6 May 2006
206. "Gravitational Waves from Intermediate-Mass Black Holes", invited talk, APS, Dallas, Texas, 24 April 2006
207. "Constraints on Alternatives to Supermassive Black Holes", invited talk, MODEST-6a, Lund, Sweden, 15 December 2005
208. "Gravitational Wave Sources from Dense Star Clusters", invited talk, MODEST-6, Evanston, IL, 31 August 2005
209. "QPO constraints on neutron stars", invited talk, A Life With Stars, Amsterdam, Holland, 24 August 2005
210. "Astrophysics With LISA", invited talk, LISA Data: Analysis, Sources, and Science, Aspen, CO, 30 May 2005

211. "Formation Mechanisms for Intermediate-Mass Black Holes", invited talk, High Energy Phenomena of Compact Objects, Hsinchu, Taiwan, 14 March 2005
212. "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
213. "Why Neutron Stars Are Interesting", physics colloquium, Georgetown University, 30 November 2004
214. "Gravitational Radiation from Inspirals of Intermediate-Mass Black Holes", astronomy seminar, University of Pennsylvania, 20 October 2004
215. "Probing General Relativity With Mergers of Supermassive and Intermediate-Mass Black Holes", solicited talk HEAD Meeting, New Orleans, LA, 9 Sep 2004
216. "Sources of Gravitational Radiation", Hot Points in Astrophysics, Dubna, Russia, 11 Aug 2004
217. "Quasi-Periodic Brightness Oscillations from Accreting Neutron Stars and Black Holes", Hot Points in Astrophysics, Dubna, Russia, 4 Aug 2004
218. "Intermediate-Mass Black Holes", invited review talk, Making Waves With Intermediate-Mass Black Holes, Penn State University, 20 May 2004
219. "And All the Rest (Primordial, Intermediate, and Orphan Black Holes)", invited review talk, APS April Meeting, Denver, CO, 1 May 2004
220. "Intermediate-Mass Black Holes", astronomy colloquium, Rutgers University, 26 March 2004
221. "Intermediate-Mass Black Holes", talk presented to the Data Analysis Working Group of the LISA International Science Team, College Park, MD, 8 December 2003
222. "Fundamental Physics in Quasiperiodic Brightness Oscillations", invited review talk, X-Ray Timing 2003 Meeting, Boston, MA, 5 November 2003
223. "Challenges for Models of Intermediate-Mass Black Holes", theoretical astrophysics seminar, University of Illinois at Urbana-Champaign, 15 October 2003
224. "Searching for Gravitational Radiation Sources Using Fluctuation Analysis", astronomy colloquium, University of Illinois at Urbana-Champaign, 14 October 2003
225. "Black Hole Binaries, Gravitational Waves, and Cockroaches", astronomy colloquium, University of Maryland, 8 October 2003
226. "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
227. "Formation of Ultraluminous X-ray Sources", invited talk, workshop on ULXs, Johns Hopkins University, Baltimore, MD, 12 September 2003
228. "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
229. "Sonic-Point and Spin Resonance Beat Frequency Model For Kilohertz QPOs", contributed talk, Neutron Stars on Fire, Princeton, NJ, 11 May 2003
230. "Formation Scenarios for Intermediate-Mass Black Holes", invited talk, The Astrophysics of Gravitational Wave Sources, College Park, MD, 25 April 2003
231. "Gravitational Waves from Intermediate-Mass Black Holes", High Energy Astrophysics Division Meeting, Mt. Tremblant, Quebec, 26 March 2003
232. "Intermediate-Mass Black Holes and Gravitational Radiation", Penn State Gravity Center colloquium, State College, PA, 3 March 2003
233. "Intermediate-Mass Black Holes and Gravitational Radiation", invited talk, Aspen Winter Conference on Gravitational Waves, 3 February 2003
234. "Intermediate-Mass Black Holes", Astronomy colloquium, Case Western Reserve University, Cleveland, OH, 15 January 2003
235. "Black Holes in Dense Stellar Regions", Astronomy and Solar Physics colloquium, Goddard Space Flight Center, Greenbelt, MD, 7 November 2002

236. "Intermediate-Mass Black Holes and Gravitational Radiation", colloquium, LIGO Science Center, 1 November 2002
237. "Black Hole Dynamics in Stellar Clusters", astronomy seminar, Southwest Research Institute, 12 July 2002
238. "Origin and Implications of Intermediate-Mass Black Holes", astronomy colloquium, University of Massachusetts at Amherst, 16 May 2002
239. "Intermediate-Mass Black Holes", astrophysics seminar, Institute for Advanced Study, Princeton, New Jersey, 1 May 2002
240. "Medium-Size Black Holes", plenary talk, April Meeting of the American Physical Society, Albuquerque, New Mexico, 20 April 2002
241. "The Neutron Star Equation of State From Fast Timing of X-ray Bursts", XEUS Science Workshop, Munich, Germany, 12 March 2002
242. "Intermediate-Mass Black Holes", invited review talk, Black Holes: Theory Confronts Reality, Santa Barbara, California, 25 February 2002
243. "Gravitational Waves and X-rays from Black Holes in Dense Stellar Clusters", invited talk, AAS Winter Meeting, Washington, D.C., 9 January 2002
244. "Origin and Implications of Intermediate-Mass Black Holes", astronomy colloquium, University of Maryland, 31 October 2001
245. "Origin and Implications of Intermediate-Mass Black Holes", high energy seminar, Goddard Space Flight Center, Greenbelt, MD, 9 October 2001
246. "Production of Intermediate-Mass Black Holes in Globular Clusters", invited talk, Two Years of Science With Chandra, Washington, D.C., 7 September 2001
247. "Consequences of Accretion onto Primordial Compact Objects",invited talk, APS meeting, Washington, D.C., 28 April 2001
248. "Neutron Star Masses", invited review talk, Quark Matter 2001 Conference, Stony Brook, New York, 18 January 2001
249. "Strong Gravity and Dense Matter from Observations of Compact Objects", high energy seminar, Goddard Space Flight Center, Greenbelt, MD, 28 November 2000
250. "Strong Gravity and Neutron Star X-ray Binaries", invited talk, HEAD meeting, Honolulu, Hawaii, 9 November 2000
251. "Small-Scale Structure in Galactic Objects Deduced from X- and Gamma Ray Timing Measurements", invited talk, IAU Symposium #205, Manchester, England, 15 August 2000
252. "Fast Oscillations, General Relativity, and Dense Matter", Astronomy Colloquium, Pennsylvania State University, 26 April 2000
253. "Science With a Large-Area Timing Instrument", invited talk, Rossi 2000 meeting, Goddard Space Flight Center, 24 March 2000
254. "Strong Gravity and Ultradense Matter: Implications of Kilohertz Brightness Oscillations", Astronomy colloquium, University of Virginia, 28 September 1999
255. "Beat-Frequency Models", invited review talk, X-ray astronomy meeting, Bologna, Italy, 6 September 1999
256. "Recent Developments in Kilohertz QPOs", invited review talk, HEAD meeting, Charleston, SC, 12 April 1999
257. "Theoretical Interpretation of Kilohertz Brightness Oscillations", astrophysics colloquium, University of Maryland, 17 March 1999
258. "Taking the Pulse of a Neutron Star", astrophysics colloquium, University of Chicago, 6 January 1999
259. "Gravitational Lensing Limits on the Average Redshift of Gamma-Ray Bursts", contributed talk, 19th Texas Symposium on Relativistic Astrophysics, Paris, France, 16 December 1998
260. "A 2.3 $M_\odot$ Neutron Star? Results from Kilohertz Brightness Oscillations", theory seminar, Institute of Astronomy, Cambridge, England, 9 December 1998

261. "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
262. "Evidence for a 2.3 Solar Mass Neutron Star and Implications for Dense Matter", theory seminar, Argonne National Laboratory, Argonne, Illinois, 17 September 1998
263. "Constraints on Neutron Star Masses and Equations of State from Kilohertz QPOs", theory seminar, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, 11 February 1998
264. "General Relativistic Effects on Gas Dynamics and Radiation Transport Near Neutron Stars", invited talk, HEAD meeting, Estes Park, CO, 7 November 1997
265. "Neutron Star Mass and Radius Constraints from High-Frequency QPOs", contributed talk, HEAD meeting, Estes Park, CO, 6 November 1997
266. "Constraints on Neutron Stars Implied by Kilohertz QPOs", invited talk, BeppoSAX/RXTE Symposium, Rome, 22 October 1997
267. "Models of Kilohertz Quasi-Periodic Brightness Oscillations", invited talk, 8th Annual October Astrophysics Conference, College Park, MD, 14 October 1997
268. "Sonic-Point Model for Kilohertz Brightness Oscillations in LMXBs", contributed talk, American Astronomical Society meeting, Winston-Salem, NC, 11 June 1997
269. "Theoretical Interpretation of Kilohertz QPO from LMXBs", invited talk, American Physical Society general meeting, Washington, DC, 19 April 1997
270. "The Origin of Cosmic Gamma-Ray Bursts", physics seminar, University of Illinois at Urbana-Champaign, Urbana, Illinois, 17 April 1997
271. "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
272. "The Songs of Neutron Stars: High-Frequency X-ray Brightness Oscillations", astrophysics colloquium, University of Illinois at Urbana-Champaign, Urbana, Illinois, 15 April 1997
273. "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
274. "Models for Kilohertz Brightness Oscillations", physics seminar, Stanford University, Palo Alto, California, 5 December 1996
275. "Sonic-Point Interpretation of High-Frequency QPOs", astronomy seminar, University of California at Berkeley, Berkeley, California, 3 December 1996
276. "Implications of Kilohertz QPOs", physics seminar, University of California at San Diego, San Diego, California, 26 November 1996
277. "A Model for High-Frequency Brightness Oscillations from Neutron-Star LMXBs", astronomy seminar, Yale University, New Haven, Connecticut, 21 November 1996
278. "Constraints on Neutron Stars in LMXBs from High-Frequency QPOs", astronomy seminar, Columbia University, New York City, 20 November 1996
279. "Sonic-Point Model for Kilohertz Brightness Oscillations", astronomy colloquium, Copernicus Astronomical Center, Warsaw, Poland, 30 October 1996
280. "Optical/Near-IR Observations of the Bursting Pulsar", astronomy seminar, Copernicus Astronomical Center, Torun, Poland, 28 October 1996
281. "Interpretation of High-Frequency Quasi-Periodic Oscillations", physics seminar, Nordita, Copenhagen, 23 October 1996
282. "Constraints on Neutron Star Masses and Radii from Kilohertz Oscillations", astronomy seminar, Astronomical Institute "Anton Pannekoek", Amsterdam, 21 October 1996
283. "Soft Gamma-Ray Repeaters: Probes of a New Physical Regime?", physics seminar, Naval Research Laboratory, Washington, DC, 9 July 1996
284. "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

285. "Soft Gamma-Ray Repeaters: Probes of a New Physical Regime?". physics seminar, University of Illinois, Urbana, Illinois, 13 May 1996
286. "Soft Gamma-Ray Repeaters and Ultrastrong Magnetic Fields", astronomy seminar, University of Wisconsin, Madison, Wisconsin, 4 April 1996
287. "Spectral Signatures of Supercritical Magnetic Fields", physics seminar, University of North Carolina, Chapel Hill, North Carolina, 1 March 1996
288. "Soft Gamma-Ray Repeaters", astronomy seminar, North Carolina State, Raleigh, North Carolina, 29 February 1996
289. "Developments in the Study of Soft Gamma-Ray Repeaters", astrophysics colloquium, University of Chicago, Chicago, Illinois, 21 February 1996
290. "Critical Luminosities in Ultrastrong Magnetic Fields", astronomy seminar, Northwestern University, Evanston, Illinois, 12 February 1996
291. "Optical/IR Observations of the Bursting Pulsar", contributed talk, Aspen Workshop on Black-Hole X-ray Transients, Aspen, Colorado, 25 January 1996
292. "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
293. "Radiation Drag near Slowly Rotating Neutron Stars", contributed talk, High Energy Astrophysics Division Meeting, Napa, CA, 2 November 1994
294. "Radiation Drag Near Slowly Rotating Neutron Stars", contributed talk, Lund workshop on neutron stars, Lund, Sweden, 1 April 1993
295. "Radiation Forces Near Neutron Stars — What a Drag!", contributed talk, Compact Objects, Nordita, Copenhagen, Denmark, 24 March 1993
296. "Gamma-Ray Production by Neutron Stars Accreting From a Disk", contributed talk, Compton Gamma-Ray Observatory meeting, St. Louis, Missouri, 16 October 1992
297. "Thermal Emission From Isolated Neutron Stars", contributed talk, Isolated Pulsars, Taos, New Mexico, 24 February 1992

Publications

Articles in Journals

1. "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 2023, arXiv:2310.12875.
2. "Characterizing the Ordinary Broad-lined Type Ic SN 2023pel from the Energetic GRB 230812B", G. Srinivasaragavan et al. 2023, arXiv:2310.14397.
3. "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.
4. "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.
5. "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.
6. "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).
7. "The Decoupling of Binaries from Their Circumbinary Disks", A. J. Dittmann, G. Ryan, and M. C. Miller 2023, *ApJ*, **949**, L30 (8 pages).
8. "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).
9. "Astrophysics with the Laser Interferometer Space Antenna", P. Amaro-Seoane et al. 2023, *LRR*, **26**, 2 (328 pages).
10. "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).
11. "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).
12. "Electromagnetic Counterparts to Massive Black Hole Mergers", T. Bogdanovic, M. C. Miller, and L. Blecha 2022, *LRR*, **25**, 3 (127 pages).
13. "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).
14. "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).
15. "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. Timmies 2022, *ApJ*, **924**, 39 (21 pages).
16. "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).
17. "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).
18. "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).

19. "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).
20. "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).
21. "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).
22. "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).
23. "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).
24. "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).
25. "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).
26. "Star formation in accretion disks and SMBH growth", A. Dittmann and M. C. Miller 2020, *MNRAS*, **493**, 3732 (12 pages).
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