

CURRICULUM VITAE

Nicolas Yunes

Professor
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Statistics

Citizenship: United States/Spain/Argentina
Civil Status: Married to Jessica Lorien Raley (9th August, 2008).

Education

August, 2008 The Pennsylvania State University
Ph. D. in Physics. GPA: 3.99/4.0.

May, 2003 Washington University in Saint Louis
B. S. in Physics. Magna Cum Laude, GPA: 3.94/4.0.

Professional Experience

2019-Present Founding Director, Illinois Center for Advanced Studies of the Universe (ICASU),
University of Illinois at Urbana-Champaign.
2019-Present Professor, Department of Physics, University of Illinois at Urbana-Champaign.
2016-2019 Associate Professor, Physics Department, Montana State University.
2011-2016 Assistant Professor, Physics Department, Montana State University.
2010-2011 Postdoctoral Fellow, MIT. Mentor: Dr. Scott Hughes
2008-2010 Research Associate, Princeton University. Supervisor: Dr. Frans Pretorius
2004-2007 Science Monitor, LIGO Hanford Observatory, WA.
2003-2008 Teaching & Research Assistant, Penn. State University, Physics Department.
2005 Visiting Scientist, University of Jena, Germany.
2002-2003 Undergraduate Research Assistant, Washington University Gravity Group.

Honors and Awards

2023 Fellow, American Physical Society
2017 Fox Faculty Award for Outstanding Research, Scholarship,
Creativity and Mentorship, Montana State University.
2015 General Relativity and Gravitation Young Scientist Prize, International Society
on General Relativity and Gravitation, International Union of Applied Physics.
2014, 2016 Hugo Schmidt Colleague Award for Outstanding Faculty, Physics Department, MSU.
2013-2014 College of Letters and Science Fellow in Engagement, Montana State University.
2012-2015 KITP Scholar (Visiting Professorship), Kavli Institute for Theoretical Physics, UCSB.
2010 The Einstein Fellowship, NASA.
2009 The Jürgen Ehlers Thesis Prize, The International Society
on General Relativity and Gravitation.
2009 Honorable Mention in the Grav. Wave Int. Committee Thesis Prize Competition.
2008 Represented Penn. State Univ. in the Nationwide Council of Graduate Schools
Dissertation Award competition (finalist).
2008 Alumni Dissertation Award, Penn. State Univ.
2006 Blue Apple Award for Best Student Presentation, Midwest Relativity Meeting.
2003-2008 Mebus and Duncan Fellowship, Penn. State Univ.

2004	Outstanding Student Award, Univ. of Texas at Brownsville, Summer School.
2004	Excellence in Teaching Award, Penn. State Univ.
2003	Senior Physics Prize for Outstanding Performance, Wash. Univ. in St. Louis.
2002-2003	Dean's Honorary Scholarship and Mesmer Scholarship, Wash. Univ. in St. Louis.
2000-2003	Chancellor's List for 4.0 GPA, Wash. Univ. in St. Louis.
2002	Tau Beta Pi Engineering Honor Society, Golden Key Honor Society.

Professional Memberships

2017-Present	Member of the Greek Physical Society.
2002-Present	Member of the American Physical Society (APS).
2004-Present	Member of the International Society for General Relativity and Gravitation.

Collaboration Membership and Leadership

2021-2026	PI and Director of the MUSES Collaboration.
2018-Present	Co-Chair of the Fundamental Science Working Group of the International LISA Consortium.
2017-Present	Member of the LISA Scientific Consortium.
2018-2021	Co-Chair of NASA's GWSIG and member of the Executive Committee of NASA's PhysPAG.
2011-2014	Convenor of the Fundamental Physics Working Group of NASA's Gravitational Wave Science Analysis Group.
2003-2008	Member of the LIGO Scientific Collaboration.

Committee Service

Professional Level

2023	Nominator for International Kyoto Prize.
2022	Nominator for MacArthur (Genius) Fellows Program.
2021	Nominator for Noble Prize in Physics.
2017-Present	Member of the Scientific Editorial Board of Classical and Quantum Gravity.
2019-2023	Member of the Steering Committee and the Advisory Committee of Snowmass
2019-2022	Nominating Committee, International Society for General Relativity and Gravitation.
2019-2021	Member of the Particle Astrophysics and Gravitation Panel of the Astro2020 Decadal Survey.
2020-2021	Chair of the Division of Gravitation of the American Physical Society.
2019-2020	Chair-Elect of the Division of Gravitation of the American Physical Society.
2018-2019	Vice-Chair of the Division of Gravitation of the American Physical Society.
2011-2014	Elected Member at Large, Topical Group on Gravitation of the APS.
2010-Present	Reviewer for grant proposals in NSF Gravity (member), NASA ATP (member and chair), and NASA Einstein Fellowship (member).
2007-Present	Referee for Wiley, Cambridge University Press., Nature, Science, Phys. Rev. Letters, Phys. Rev. D, MNRAS, Nuclear Physics B, Class. and Quant. Gravity, International Journal of Modern Physics, Astrophysical Journal, the European Physical Journal, Journal of Cosmology and Astroparticle Physics, Physics Letters B.

University Level

2019-Present	Illinois Center for Advanced Studies of the Universe, Executive Committee (Chair).
2015-2019	MSU Physics Department Graduate Admissions Committee (Member, Chair).
2015-2019	MSU Physics Department Recruitment Committee (Chair, Member).
2016-2019	MSU University High Performance Computing Cluster Committee (Member)
2018-2021	MSU College of Letters and Sciences Promotion & Tenure Committee (Member)
2018-2021	MSU College of Letters and Sciences Interdisciplinary Committee (Member)
2018-2021	MSU Graduate School Council Committee (Member)
2017	MSU University Diversity and Inclusion Committee (Member)
2011-2015	MSU Library Committee (Chair)
2015-2019	MSU Society of Physics Students (SPS) Faculty Adviser.

Professional Workshops and Conferences Organized

2023	Scientific Organizing Committee for the “The Transients and Variable Universe” Conference, NCSA/CAPS/ICASU.
2022	Organizing Committee for the AstroMeet Workshop, NCSA.
2023	Principal Organizer of an international workshop on “Fundamental Physics with LISA” at the Bohr Institute, Copenhagen, Denmark.
2020-2021	Scientific Organizing Committee for the International Conference on General Relativity and Gravitation (GR21), Valencia, Spain.
2023-2024	Scientific Organizing Committee for the Amaldi Conference on Gravitational Waves (Amaldi15).
2022	Principal organizer of the ICASU Inaugural Conference, UIUC.
2022	Principal organizer of the MUSES Collaboration Meeting, UIUC.
2022	Principal Organizer of an international workshop on “Fundamental Physics with LISA” at the Solvay Institute, Brussels Belgium.
2022	Co-Organizer of Simons Workshop, Brown University.
2021	Main organizer of the Midwest Relativity Meeting, UIUC.
2021	Co-Organizer of Cosmo-21, UIUC.
2021	Co-Organizer of the Conference for Undergraduate Women in Physics, UIUC.
2020	Organizer of an international virtual workshop on “From Heavy Ions to Neutron Stars”, UIUC.
2018	Principal Organizer of an international workshop on “Fundamental Physics with LISA” at the Galileo Galilei Institute, Florence Italy.
2017	Co-Organizer of the Conference for Undergraduate Women in Physics, MSU.
2017	Principal local organizer of an international workshop on “eXtreme Matter meets eXtreme Gravity” at MSU.
2015	Principal local organizer of an international workshop on “Extreme Gravity” at MSU.
2013	Principal local organizer of an international workshop on “Testing General Relativity in the Advanced Detector Era” at MSU.

Research Interests

- Experimental Relativity.* Develop and apply model-independent and model-specific tests of General Relativity with gravitational wave observations, binary pulsar observations and Solar System experiments.
- Gravitational Waves.* Construct accurate models for the gravitational waves emitted in the inspiral and ringdown of black holes and neutron stars using post-Newtonian and black hole perturbation theory.
- Black Holes.* Find analytical and numerical black hole solutions and study their properties and stability in well-motivated and observationally-viable, modified gravity theories.
- Neutron Stars.* Study approximately universal properties of neutron stars and use astrophysical data to infer the neutrons tar equation of state.

Funded Grant Activity

(Currently active grants are boldfaced)

Large Grants

- 2022-2027 **“Frameworks: MUSES, Modular Unified Solver of the Equation of State” Cyberinfrastructure for Sustained Scientific Innovation Grant, NSF OCI, PI, \$4, 421, 366.**
- 2022-2025 **“Probing extreme gravity with gravitational waves,” Gravity Program, NSF, PI, \$440, 000.**
- 2022-2025 **“Overcoming Systematics in Gravitational Wave Tests of General Relativity with LISA” Astrophysics Theory Program, NASA, PI, \$981, 986.**
- 2021-2027 **“Astrophysical Investigations of Dynamical Chern-Simons Theory” Targeted Grant in Mathematical and Physical Sciences, Simons Foundation, Co-PI, \$3, 000, 000.**
- 2020-2023 “Gravitational wave cosmology with tidal Love numbers” Windows of the Universe Program, NSF, PI, \$350, 000.
- 2020-2023 “Can Black Hole Images Constrain Modified Gravity Theories?” Windows of the Universe Program, NSF, Co-PI, \$555, 828.
- 2018-2021 “The Extreme Gravity Dynamics and Gravitational Waves of Generic Compact Binary Inspirals,” Gravity Program, NSF, PI, \$343, 011.
- 2018-2021 “Exploring Extreme Gravity with LISA: Developing a Science Case for Tests of General Relativity,” NASA ATP, Co-PI, \$815, 554.
- 2017-2020 “Exploring Extreme Gravity: Neutron Stars, Black Holes and Gravitational Waves,” NASA EPSCoR Program, Science PI, \$750, 000.
- 2016-2019 “Addressing key challenges in space gravitational wave astronomy,” Astrophysics Research and Analysis Program, NASA, Co-PI, \$250, 000.
- 2013-2018 “Gravitational Waves as Probes of Dynamical Strong-field Gravity,” Faculty Early Career Development (CAREER) Program, NSF, PI, \$500, 000.
- 2011-2014 “Probing Strong-field General Relativity with Gravitational Waves,” Astrophysical Theory Program (ATP), NASA ROSES, Co-I, \$296, 869.
- 2011-2014 “Probing Strong Gravity with Gravitational Waves,” Gravity Program, NSF, PI, \$150, 000.

Small Grants

2015-2016	Conference Support, Gravity Program, NSF, PI, \$5,000.
2014-2015	“The eXtreme Gravity Institute,” President Research Award, MSU, PI, \$50,000.
2014-2015	“Einstein’s Symphony,” Education and Public Outreach Grant, American Physical Society, PI, \$10,000.
2013-2015	“Einstein’s Symphony: A Gravitational Wave Voyage Through Space and Time,” Educational Enhancement Grants, Montana Space Grant Consortium, NASA, PI, \$50,000.
2013-2014	Conference Support, Gravity Program, NSF, PI, \$5,000.
2011-2013	“Celebrating Einstein,” Educational Enhancement Grants, Montana Space Grant Consortium, NASA, PI, \$50,000.

Teaching Activities

Classes Taught at UIUC

Neutron Star Physics (Physics 599-NST), Fall 2023, Fall 2024.
 The Physics of Art, the Art of Physics, Fall 2023.
 Graduate Neutron Star Astrophysics and Nuclear Physics, Fall 2022.
 Graduate General Relativity, Spring 2020.
 Graduate General Relativity II (Black holes and 3+1), Fall 2020.
 Graduate General Relativity III (Post-Newtonian dynamics), Fall 2021.
 Undergraduate Freshman Physics (Physics 101), Spring 2021.

Classes Taught at MSU

Graduate Classical Mechanics, Fall 2012, Spring 2012, Fall 2013.
 Graduate General Relativity I, Fall 2017.
 Graduate General Relativity II, Spring 2013, Spring 2015.
 Graduate General Relativity III, Spring 2016, Spring 2017
 Graduate Quantum Field Theory, Spring 2014.
 Undergraduate Honors Radical Creativity, Fall 2016, Spring 2018
 Undergraduate Honors Freshman Physics, Fall 2015, Fall 2016, Fall 2017

Other Teaching Activities

2022	Intensive Summer Course on General Relativity and Gravitational Waves, Universidad de Buenos Aires, Argentina.
2019	Gravitational Wave Astronomy and Cosmology Summer School, Hangzhou, China.
2019	Geometry and Gravity Summer School, ICP, Trieste, Italy.
2019	Summer School at Testing Gravity '19, Vancouver Canada.
2019	Summer School on Gravitational Waves, Kyoto Japan, 2015.
2006-2009	Substitute or Invited Lecturer, Penn. State University, Princeton University, Haverford College.
2001-2003	Science Tutor, Washington University, Physics Department.
2001-2002	Observatory Assistant, Washington University, Physics Department.

Commitment to Diversity

University Service

2018-2019	Founding member of the Diversity Committee, Physics Department, MSU.
2014-2017	Chair of the Recruitment Committee, Physics Department, MSU.
2014-2015	Member of the Diversity Committee, University wide, MSU.
2017	Co-organizer of the APS Conference for Undergraduate Women in Physics, MSU.

Mentorship and Recruitment Trips

2018	Summer internship mentor of Jacob Stanton (African-American student from Brown).
2016–Present	Research mentor of Latin-American graduate student (Alejandro Cárdenas-Avendaño, Carlos Conde Ocazionez).
2019–2021	Research mentor of Latin-American undergraduate student (Nicolas Patinño).
2016–2017	Graduate adviser of Native American graduate student (Kyle Matt).
2011–Present	Research mentor of female graduate students (Katerina Chatziioannou, Toral Gupta, Laura Sampson, Sarah Vigeland, Caroline Owen, Kristen Schumacher).
2011–Present	Research mentor of female undergraduate students (Katie Chamberlain, Jaxen Godfrey).
2017	Latin-American Recruitment in Colombia (Bogotá, Medellín).
2007, 2018	Latin-American Recruitment in Argentina (Buenos Aires).

Advising and Mentoring

Current Undergraduate Students

2023-Present	Dhruv Srivastava, UIUC.
2023-Present	Jacob Schimp, UIUC.

Former Undergraduate Students

2019-2023	Nicolas Patiño, UIUC.
2020-2022	Ashley Shaw, UIUC.
2019-2022	Jameson Dong, UIUC.
2016-2019	Samuel Liebersbach, MSU. USP award.
2017-2019	Jaxen Godfrey, MSU. USP award, MSGC Apprenticeship award.
2017-2019	Reagan Cox, MSU.
2018-2019	Quentin Lucas, MSU.
2011-2012	Brennan Ireland, MSU. Became grad student at RIT.
2012-2015	Devin Hansen, MSU. USP award, NSF Graduate Fellowship. Became a graduate student at the Perimeter Institute.
2015-2018	Katie Chamberlain, MSU. USP award, MSGC Apprenticeship. Became a graduate student at Arizona State University.
2016-2018	Harrison Gott, MSU. USP award. Currently applying for graduate school.

Current Graduate Students

2024-Present	Anand Balivanda, UIUC.
2024-Present	Brook Burbridge, UIUC.
2024-Present	Jierui Hu, UIUC.
2024-Present	Kelvin Lamb, UIUC.
2024-Present	Santiago Loane, UIUC.
2024-Present	Kaitlyn Prokup, UIUC.
2022-Present	Jayana Antunes Saes De Lima, UIUC.
2022-Present	Daniel Caballero, UIUC.
2022-Present	Bryce Cousins, UIUC.
2021-Present	Nijaid Arredondo, UIUC.
2021-Present	Carlos Conde, UIUC.
2020-Present	Abishek Hegede, UIUC.
2020-Present	Yiqi Xie, UIUC.
2019-Present	Simone Mezzasoma, UIUC.
2019-Present	Kristen Schumacher, UIUC.

Former Graduate Students

2018-Present	Alexander Deich, MSU and UIUC. Became Research Scientists at KU Leuven.
2018-Present	Caroline Owen, MSU and UIUC. Became postdoc at Milan.
2018-Present	Rohit Chandramouli, MSU and UIUC. Became postdoc at Sissa.
2017-2023	Pratik Wagle, MSU and UIUC. Became a postdoc at AEI.
2017-2023	Hung Tan, MSU and UIUC. Became a postdoc at Syracuse U.
2017-2022	Scott Perkins, MSU and UIUC. Became postdoc at Lawrence Livermore National Lab.
2016-2021	Alejandro Cárdenas-Avendaño, MSU and UIUC. Became postdoc at Princeton University.
2016-2020	Blake Moore, MSU. Became employed at Raytheon Industries.
2014-2020	Andrew Sullivan, MSU. Became postdoc at Princeton University.
2013-2019	Alex Saffer, MSU. Became postdoc at the University of Virginia. Now a postdoc at WVU.
2014-2018	David Anderson, MSU. Became employed at Raytheon Industries.
2012-2018	Nicholas Loutrel, MSU. Became postdoc at Princeton U. Now a postdoc at Sapienza.
2012-2017	Dimitry Ayzenberg, MSU. Became postdoc in Fudan, China. Now a Research Assoc. at Tuebingen.
2011-2016	Katerina Chatzioannou. MSU. Onassis Fellow. Became CITA Fellow, then Flatiron Fellow. Now Asst. Prof. at Caltech.
2011-2014	Laura Sampson, MSU, co-advised with Prof. Cornish. Became postdoc at CIERA. Now in data science.
2010-2011	Leo C. Stein, MIT, co-advised with Prof. Hughes. Became Burke fellow at Caltech. Now Asst. Prof. at U. of Mississippi.
2010-2011	Sarah Vigeland, MIT, co-advised with Prof. Hughes. Became postdoc at UWM. Now Asst. Prof. at UWM.

Visiting Scholars

2024	Fatemeh Taherasghari (adviser: Prof. Clifford Will), U. Florida, USA.
2023	Hao Yang Liu (adviser: Prof. Jun Zhang), Beijing U., China.
2022	Jann Zozzo (adviser: Prof. Lavinia Heisenberg), ETH, Zurich.
2022	T. A. de Pirey Saint Alby (adviser: Prof. Luc Blanchet), Institute d'Astrophysique, France.

Current Postdoctoral Associates

2024-Present	Dongjun Li, UIUC
2022-Present	Alexandria Tucker, UIUC
2022-Present	Adrian Chung, UIUC

Former Postdoctoral Associates

2022-2024	Justin Ripley, UIUC
2022-2023	Ron Tso, UIUC. Passed away in 2023.
2020-2023	Jun Zhang, UIUC. Became Asst. Prof. in China
2020-2023	Deep Chatterjee, UIUC. Became Research Scientist in MIT LIGO Lab.
2017-2020	Hector Okada-Da Silva, MSU, UIUC. Became postdoc at AEI.
2014-2016	Remya Nair, MSU.
2014-2016	Barun Majumder, MSU. Fullbright Fellow
2014-2015	Laura Sampson, MSU. Became L'Oreal Fellow and CIERA Fellow.
2011-2015	Kent Yagi, MSU. Became JSPS Fellow at Princeton and then Asst. Prof. at UVA.
2011-2014	Antoine Klein, MSU. Became Research Scientist at U. of Birmingham.

Outreach Events and Informal Education

2024-Present	Resident Artist in Physics Program , Creator and Producer. Artsience program deployed at Illinois Physics.
2022	Einstein's Playlist Reboot , Creator, Producer and Script Writer. Original planetarium show. Premier at Parkland Planetarium, Champaign IL.
2022	Making an Accretion Disk around a Black Hole , Co-creator with Raley. Interdisciplinary outreach event, with elementary school students at Uni Primary, Champaign, IL.
2020	Highlights on the Nobel Prize , Panel Member, Chicago Council on Science and Technology.
2019–2020	Rhythms of the Universe II , Creator and Principal Organizer. Interdisciplinary, outreach event, similar to part I in 2013–2014, but expanded to include more physics outreach.
2019	Overcome , Creator and Producer, Bozeman, Montana. Art Installation of successful university faculty that have overcome difficulties.
2017	Einstein's Playlist , Creator, Producer and Script Writer, Bozeman, Montana. Original planetarium show. Distributed freely and made available to all planetaria in the world. Attendance at Premier: 110 with outreach activities developed and organized.
2017	Astronomy on Tap , Invited Speaker, Bozeman, Montana.
2016-2019	NASA Summer Camp , Content Advisor, Bozeman, Montana. Summer camp for K-12 students from low-income and rural areas in Montana. Assisted graduate students in developing curriculum for gravity session at camp. Attendance: 100 students, activities posted online.
2016	Wonderlust Sidetrip , Invited Speaker, Bozeman, Montana.
2015	Sunrise Rotary Meeting , Invited Speaker, Bozeman, Montana.

- 2013-2014 **Rhythms of the Universe I.** Creator and Principal Organizer. Interdisciplinary, outreach event with the MSU English Dept. and the MSU Performing Arts Dept. Undergraduate students were coached in physics, astronomy and english to encourage to write original spoken-word poetry that used astrophysics as metaphorical tools. Event performed at the Emerson Cultural Center. Attendance: 1000 people, recorded by PBS.
- 2013 **TEDxBozeman**, Invited Speaker, Bozeman, Montana.
- 2012-2019 **Physics Bowl.** Creator and Organizer. Physics competition between teams composed of undergraduates, graduate students and postdoctoral researchers. Enhances spirit of collaboration and camaraderie in the department.
- 2011-2019 **STEM Mentor.** Served as mentor to K-12 students in Park High School, Livingston MT
- 2010-2014 **Celebrating Einstein.** Creator and PI. Interdisciplinary, mega-outreach event with the MSU School of Music, College of Letters and Sciences, College of Arts and Architecture, UCLA and Princeton. Redone in Texas (UTB) and Cambridge (MIT), with impact on over 70,000 people.
1. *Speaking of Einstein.* Lecture Series. Four internationally renown scientists explained Einstein and his theories to the general public.
 2. *Black (W)hole.* Immersive art installation that conveyed the excitement of accretion disks, black holes and gravitational waves.
 3. *A Shout Across Time.* Multimedia show with a danced lecture, featuring a *Cirque du Soleil* aerialist, a commissioned music composition and film, featuring the scientific visualization of black hole collisions and the sounds of gravitational waves, as well as a live interview with a world-renown scientist.
 4. *Einstein in the Schools.* Presentations on Einstein's theory of General Relativity and astrophysical phenomena, like black holes and the neutron stars to K-12 schools.

Published Books

- “Gravitational Waves in Physics and Astrophysics: An Artisan’s Guide,” M. Coleman Miller and N. Yunes, Institute of Physics, 2022.
- “Is Einstein Still right? Black Holes, Gravitational Waves, and the Quest to Verify Einstein’s Greatest Creation”, Clifford M. Will and N. Yunes, Oxford University Press, 2021.

List of Selected Presentations

Plenary Talks at Conferences and Workshops

- Plenary talk at the April Meeting of the American Physical Society, California, 2024.
- Plenary talk at Japanese General Relativity and Gravitation Meeting, Japan, 2023.
- Fundamental aspects of gravity, Imperial College, London, 2022.
- New frontiers in Strong Gravity, Benasque, Spain, 2022.
- Chern-Simons and other Topological Field Theories, MSRI Berkley, 2021.
- 4th Global meeting of the GWVerse, Portugal, 2021
- Spanish-Portuguese Relativity Meeting, International Conference, Palencia Spain, 2018.
- LISA Symposium, International Conference, Chicago, 2018.
- Numerical Relativity beyond General Relativity, International Workshop, Benasque Spain, 2018.
- Gravity and Cosmology 2018, International Workshop, Kyoto Japan, 2018.
- International Conference on Quantum Gravity, International Conference, Shenzhen China, 2018.

- New Frontiers in Gravitational-Wave Astrophysics, International Conference, Rome Italy, 2017.
- The Strong Gravity Universe, International Workshop, Azores Portugal, 2017.
- Quantum Vacuum and Gravitation, International Workshop, Germany, 2017.
- Strong Bad, Workshop, Ole' Miss, 2017.
- Experimental Search for Quantum Gravity, International Workshop, Germany, 2016.
- Physics at the Extreme, International Conference, Penn State, 2016.
- Seventh Meeting on CPT and Lorentz Symmetry, International Conference, Germany, 2016.
- GR@100, International Conference, Princeton Center for Theoretical Physics, Princeton, 2016.
- Cosmological Frontiers in Fundamental Physics, International Workshop, Perimeter Institute, 2016.
- Gravity and Experiment, International Workshop, Paris, 2016.
- Testing Gravity 2015, Workshop, Vancouver, Canada, 2015.
- Cosmological Frontiers in Fundamental Physics, Workshop, Paris, France, 2014.
- Testing General Relativity, Workshop, Ole' Miss, Oxford, Mississippi, 2014.
- YKIS 2013, Conference, Kyoto Japan, 2013.
- Strong Gravity Workshop, Lisbon Portugal, 2013.
- LISA Symposium, Conference, Paris France, 2012.
- Sackler Conference, Cambridge MA, 2012.
- Rattle and Shine: Gravitational Wave and Electromagnetic Studies of Compact Binary Mergers, KITP Workshop, Santa Barbara, 2012.
- NR-HEP Workshop, Portugal, 2011.
- JGRG Conference, Japan, 2011.
- GWPAW Conference, Milwaukee, 2011.
- CAPRA-NRDA Workshop, Perimeter Institute, Canada, 2010.
- Astro-GR Workshop, Paris, France, 2010.

Departmental Colloquia

- Physics Department, University of Oregon, 2023.
- Physics Department, Montana State University, 2022.
- Physics Department, University of Texas Austin, 2022.
- Physics Department, Brigham Young University, 2022.
- Fermi Symposium, University of Chicago, 2020.
- Departamento de Física, Universidad de Medellín, Medellín, Colombia, 2018.
- Departamento de Física, Universidad de Bogotá, Bogotá, Colombia, 2018.
- Physics Department, University of Virginia, 2018.

- Physics Department, University of Florida, 2016.
- Physics Department, Columbia University, 2015.
- Physics Department, MSU, 2013.
- DAMPT, University of Cambridge, 2012.
- Astrophysics Department, Northwestern University, 2011.
- Physics Department, MSU, 2010.

Invited Talks at Conferences

- Greek Relativity Meeting, International Conference, Rhodes Greece, 2018.
- International Conference on General Relativity (GR21), New York, 2016.
- General Relativity & Gravitation: A Centennial Perspective, International Conference, Penn State, 2015.
- Canadian Association of Physicists National Congress, Edmonton, Canada, 2015.
- Theory Canada Conference, Calgary, Canada, 2015.
- April APS Meeting, Savannah, Georgia, 2014.
- Experimental Search for Quantum Gravity Conference, Perimeter Institute, Canada 2012.
- April APS Meeting, Atlanta, Georgia, 2012.

Some Invited Talks at Universities

- Mathematics Seminar, University of Michigan, 2017.
- High Energy Astrophysics Seminar, Johns Hopkins University, 2017.
- High Energy Physics Seminar, Brown University, 2017.
- Space Science Seminar, NASA Marshal Space Flight Center, 2017.
- Gravity Seminar, University of Wisconsin-Milwaukee, 2015.
- Nuclear Theory Seminar, Institute for Nuclear Theory, 2015.
- HEP Seminar, Penn State, 2014.
- APC, University of Paris, Paris, France, 2013.
- IAP/general relativityECO Seminar, Institute of Astrophysics, Paris, France, 2005, 2013.
- TAPIR Seminar, Caltech, 2010, 2013, 2014.
- ITC-Cfa Seminar, Harvard University, 2009, 2013.
- Joe Henry Lunch Seminar, Princeton University, 2012, 2014.
- GR and Astrophysics Seminar, University of Illinois – Urbana-Champaign, 2011.
- CCRG Seminar, Rochester Institute of Technology, 2011.
- Gravity Seminar, Princeton University, 2008, 2009.
- Nuclear and Particle Seminar, MIT, MA, 2007.

Some Contributed Talks

- April APS Meeting, Conference, Columbus, Ohio, 2018.
- April APS Meeting, Conference, Washington DC, 2017.
- April APS Meeting, Conference, Baltimore, Maryland, 2015.
- Relativity and Astrophysics Seminar, Montana State University, 2013.
- April APS Meeting, Conference, Denver, Colorado, 2013.
- Relativity and Astrophysics Seminar, Montana State University, 2012.

List of Publications¹

(postdoctoral and student mentees during publication appear in italics)

1. **“Millilensing induced systematic biases in parameterized tests of General Relativity,”**
A. Liu, R. S. Chandramouli, O. A. Hannuksela, N. Yunes and T. G. F. Li,
[arXiv:2410.21738 [gr-qc]].
2. **“Bayesian search of massive scalar fields from LIGO-Virgo-KAGRA binaries,”**
Y. Xie, A. K. W. Chung, T. P. Sotiriou and N. Yunes,
[arXiv:2410.14801 [gr-qc]].
3. **“Systematic biases in parametrized tests of general relativity due to waveform mismodeling: the impact of neglecting spin precession and higher modes,”**
R. S. Chandramouli, K. Prokup, E. Berti and N. Yunes,
[arXiv:2410.06254 [gr-qc]].
4. **“Improved Analytic Love-C Relations for Neutron Stars,”**
T. Lowrey, K. Yagi and N. Yunes,
[arXiv:2410.06358 [gr-qc]].
5. **“Radial Mode Stability of Two-Fluid Neutron Stars,”**
D. A. Caballero, J. L. Ripley and N. Yunes,
[arXiv:2408.04701 [gr-qc]].
6. **“Gravitational-Wave Tests of General Relativity with Ground-Based Detectors and Pulsar-Timing Arrays,”**
N. Yunes, X. Siemens and K. Yagi,
[arXiv:2408.05240 [gr-qc]].
7. **“Robust and improved constraints on higher-curvature gravitational effective-field-theory with the GW170608 event,”**
H. Liu and N. Yunes,
[arXiv:2407.08929 [gr-qc]].
8. “Dissipative tidal effects to next-to-leading order and constraints on the dissipative tidal deformability using gravitational wave data,”
A. Hegade K. R., J. L. Ripley and N. Yunes,
Phys. Rev. D **110**, no.4, 044041 (2024)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.044041>].
9. **“Finding cosmic anisotropy with networks of next-generation gravitational-wave detectors,”**
B. Cousins, A. Dhani, B. S. Sathyaprakash and N. Yunes,
[arXiv:2406.15550 [gr-qc]].
10. **“Quasinormal mode frequencies and gravitational perturbations of black holes with any subextremal spin in modified gravity through METRICS: The scalar-Gauss-Bonnet gravity case,”**
A. K. W. Chung and N. Yunes,
Phys. Rev. D **110**, no.6, 064019 (2024)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.064019>].

¹ *Statistics.* Total of 263 papers: 2 exceptionally famous paper (+500 citations), 9 famous papers (250-499 citations) and 47 very well-known papers (100-249 citations), 10 review papers, and 1 general physics article. Total of 18,133 citations with an h-index of 72 (excluding papers in large collaborations, like LIGO and the LSC), as calculated by inspirehep.net using the total number of papers submitted. See caveats at: <http://inspirehep.net/help>.

11. **“Ringing out General Relativity: Quasinormal Mode Frequencies for Black Holes of Any Spin in Modified Gravity,”**
A. K. W. Chung and N. Yunes,
Phys. Rev. Lett. **133**, no.18, 181401 (2024)
[\[https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.133.181401\]](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.133.181401).
12. **“Possible Causes of False General Relativity Violations in Gravitational Wave Observations,”**
A. Gupta, K. G. Arun, E. Barausse, L. Bernard, E. Berti, S. A. Bhat, A. Buonanno, V. Cardoso, S. Y. Cheung and T. A. Clarke, *et al.*
[arXiv:2405.02197 [gr-qc]].
13. **“Neural post-Einsteinian framework for efficient theory-agnostic tests of general relativity with gravitational waves,”**
Y. Xie, D. Chatterjee, G. Narayan and N. Yunes,
Phys. Rev. D **110**, no.2, 024036 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.024036\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.024036).
14. **“Dynamical tidal response of nonrotating relativistic stars,”**
A. Hegade K. R., J. L. Ripley and N. Yunes,
Phys. Rev. D **109**, no.10, 104064 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104064\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104064).
15. **“Efficient gravitational-wave model for fully-precessing and moderately eccentric, compact binary inspirals,”**
J. N. Arredondo, A. Klein and N. Yunes,
Phys. Rev. D **110**, no.4, 044044 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.044044\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.044044).
16. **“Approximately universal I-Love- $\langle cs^2 \rangle$ relations for the average neutron star stiffness,”**
J. A. Saes, R. F. P. Mendes and N. Yunes,
Phys. Rev. D **110**, no.2, 024011 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.024011\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.024011).
17. **“Birefringence tests of gravity with multimessenger binaries,”**
M. Lagos, L. Jenks, M. Isi, K. Hotokezaka, B. D. Metzger, E. Burns, W. M. Farr, S. Perkins, K. W. K. Wong and N. Yunes,
Phys. Rev. D **109**, no.12, 124003 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.124003\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.124003).
18. **“A New Probe of Gravitational Parity Violation Through (Non-)Observation of the Stochastic Gravitational-Wave Background,”**
T. Callister, L. Jenks, D. Holz and N. Yunes,
[arXiv:2312.12532 [gr-qc]].
19. **“A constraint on the dissipative tidal deformability of neutron stars,”**
J. L. Ripley, A. Hegade K. R., R. S. Chandramouli and N. Yunes,
Nature Astron. **8**, no.10, 1277-1283 (2024)
[\[https://www.nature.com/articles/s41550-024-02323-7\]](https://www.nature.com/articles/s41550-024-02323-7).
20. **“Spectral method for metric perturbations of black holes: Kerr background case in general relativity,”**
A. K. W. Chung, P. Wagle and N. Yunes,

- Phys. Rev. D **109**, no.4, 044072 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.044072\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.044072).
21. **“Perturbations of spinning black holes in dynamical Chern-Simons gravity: Slow rotation equations,”**
P. Wagle, D. Li, Y. Chen and N. Yunes,
 Phys. Rev. D **109**, no.10, 104029 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104029\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104029).
 22. **“Isospectrality breaking in the Teukolsky formalism,”**
D. Li, A. Hussain, P. Wagle, Y. Chen, N. Yunes and A. Zimmerman,
 Phys. Rev. D **109**, no.10, 104026 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104026\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.104026).
 23. **“Nontrivial features in the speed of sound inside neutron stars,”**
D. Mroczek, M. C. Miller, J. Noronha-Hostler and N. Yunes,
[\[arXiv:2309.02345 \[astro-ph.HE\]\]](https://arxiv.org/abs/2309.02345).
 24. **“Lyapunov exponents to test general relativity,”**
A. Deich, N. Yunes and C. Gammie,
 Phys. Rev. D **110**, no.4, 044033 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.044033\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.110.044033).
 25. **“Gravitational wave polarizations with different propagation speeds,”**
K. Schumacher, N. Yunes and K. Yagi, Phys. Rev. D **108**, no.10, 104038 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.104038\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.104038).
 26. **“Probing internal dissipative processes of neutron stars with gravitational waves during the inspiral of neutron star binaries,”**
J. L. Ripley, A. Hegade K. R. and N. Yunes,
 Phys. Rev. D **108**, no.10, 10 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.103037\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.103037).
 27. **“I-Love-Q relations in Einstein-aether theory,”**
K. Vylet, S. Ajith, K. Yagi and N. Yunes,
 Phys. Rev. D **109**, no.2, 024054 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.024054\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.024054).
 28. **“Accuracy of the slow-rotation approximation for black holes in modified gravity in light of astrophysical observables,”**
P. A. Cano, A. Deich and N. Yunes,
 Phys. Rev. D **109**, no.2, 024048 (2024)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.024048\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.109.024048).
 29. **“Parameterized Parity Violation in Gravitational Wave Propagation,”**
L. Jenks, L. Choi, M. Lagos and N. Yunes,
 Phys. Rev. D **108**, no.4, 044023 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.044023\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.044023).
 30. **“Non-relativistic limit of first-order relativistic viscous fluids,”**
A. Hegade K. R, J. L. Ripley and N. Yunes,
 Phys. Rev. D **107**, no.12, 124029 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.124029\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.124029).

31. **“Untargeted Bayesian search of anisotropic gravitational-wave backgrounds through the analytical marginalization of the posterior;”**
A. K. W. Chung and *N. Yunes*,
 Phys. Rev. D **108**, no.4, 043032 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.043032\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.043032).
32. **“Gravitational wave constraints on Einstein-æther theory with LIGO/Virgo data;”**
K. Schumacher, *S. E. Perkins*, *A. Shaw*, *K. Yagi* and *N. Yunes*,
 Phys. Rev. D **108**, no.10, 104053 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.104053\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.104053).
33. **“Theoretical and Experimental Constraints for the Equation of State of Dense and Hot Matter;”**
R. Kumar et al. [MUSES],
 Living Rev. Rel. **27**, no.1, 3 (2024)
[\[https://link.springer.com/article/10.1007/s41114-024-00049-6\]](https://link.springer.com/article/10.1007/s41114-024-00049-6).
34. **“Gravitational Wave Memory Beyond General Relativity;”**
L. Heisenberg, *N. Yunes* and *J. Zosso*,
 Phys. Rev. D **108**, no.2, 024010 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.024010\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.024010).
35. **“Spectral Method for the Gravitational Perturbations of Black Holes: Schwarzschild Background Case;”**
A. K. W. Chung, *P. Wagle* and *N. Yunes*,
 Phys. Rev. D **107**, no.12, 124032 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.124032\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.124032).
36. **“Report of the 2021 U.S. Community Study on the Future of Particle Physics (Snowmass 2021);”**
J. N. Butler, *R. S. Chivukula*, *A. de Gouvêa*, *T. Han*, *Y. K. Kim*, *P. Cushman*, *G. R. Farrar*, *Y. G. Kolomen-sky*, *S. Nagaitsev* and *N. Yunes*, *et al.*
[\[arXiv:2301.06581 \[hep-ex\]\]](https://arxiv.org/abs/2301.06581).
37. **“Waveform accuracy and systematic uncertainties in current gravitational wave observations;”**
C. B. Owen, *C. J. Haster*, *S. Perkins*, *N. J. Cornish* and *N. Yunes*,
 Phys. Rev. D **108**, no.4, 044018 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.044018\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.108.044018).
38. **“How do axisymmetric black holes grow monopole and dipole hair?;”**
A. H. K. R., *E. R. Most*, *J. Noronha*, *H. Witek* and *N. Yunes*,
 Phys. Rev. D **107**, no.10, 104047 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.104047\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.104047)
39. **“Dark Matter or Regular Matter in Neutron Stars? How to tell the difference from the coalescence of compact objects;”**
M. Hippert, *E. Dillingham*, *H. Tan*, *D. Curtin*, *J. Noronha-Hostler* and *N. Yunes*,
 Phys. Rev. D **107**, no.11, 115028 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.115028\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.115028).
40. **“Where and why does Einstein-scalar-Gauss-Bonnet theory break down?;”**
A. H. K. R., *J. L. Ripley* and *N. Yunes*,
 Phys. Rev. D **107**, no.4, 044044 (2023)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.044044\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.044044)

41. **“Long Range Plan: Dense matter theory for heavy-ion collisions and neutron stars,”**
A. Lovato, T. Dore, R. D. Pisarski, B. Schenke, K. Chatziioannou, J. S. Read, P. Landry, P. Danielewicz, D. Lee and S. Pratt, *et al.*
[arXiv:2211.02224 [nucl-th]].
42. **“Breaking bad degeneracies with Love relations: Improving gravitational-wave measurements through universal relations,”**
Y. Xie, D. Chatterjee, G. Holder, D. E. Holz, S. Perkins, K. Yagi and N. Yunes,
Phys. Rev. D **107**, no.4, 043010 (2023)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.043010>]
43. **“Report of the Topical Group on Cosmic Probes of Fundamental Physics for for Snowmass 2021,”**
R. X. Adhikari, L. A. Anchordoqui, K. Fang, B. S. Sathyaprakash, K. Tollefson, T. R. Lewis, K. Engel, A. Aboubrahim, O. Akarsu and Y. Akrami, *et al.*
[arXiv:2209.11726 [hep-ph]].
44. **“I-Love-Q relations in Hořava-Lifshitz gravity,”**
S. Ajith, K. Yagi and N. Yunes,
Phys. Rev. D **106**, no.12, 124002 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.106.124002>]
45. **“Perturbations of Spinning Black Holes beyond General Relativity: Modified Teukolsky Equation,”**
D. Li, P. Wagle, Y. Chen and N. Yunes,
Phys. Rev. X **13**, no.2, 021029 (2023)
[<https://journals.aps.org/prx/abstract/10.1103/PhysRevX.13.021029>]
46. **“Spin-induced dynamical scalarization, descalarization, and stealthness in scalar-Gauss-Bonnet gravity during a black hole coalescence,”**
M. Elley, H. O. Silva, H. Witek and N. Yunes,
Phys. Rev. D **106**, no.4, 044018 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.106.044018>]
47. **“Parity violation in spin-precessing binaries: Gravitational waves from the inspiral of black holes in dynamical Chern-Simons gravity,”**
N. Loutrel and N. Yunes,
Phys. Rev. D **106**, no.6, 064009 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.106.064009>]
48. **“Mirror neutron stars,”**
M. Hippert, J. Setford, H. Tan, D. Curtin, J. Noronha-Hostler and N. Yunes,
Phys. Rev. D **106**, no.3, 035025 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.106.035025>]
49. **“Theory-agnostic framework for inspiral tests of general relativity with higher-harmonic gravitational waves,”**
S. Mezzasoma and N. Yunes,
Phys. Rev. D **106**, no.2, 024026 (2022)
[<https://journals.aps.org/prd/pdf/10.1103/PhysRevD.106.024026>]
50. **“A Tiny Needle in a Messy Haystack: Chaos in Quadratic Gravity,”**
A. Deich, A. Cárdenas-Avendaño and N. Yunes,
Phys. Rev. D **106**, no.2, 024040 (2022)
[<https://journals.aps.org/prd/pdf/10.1103/PhysRevD.106.024040>]

51. **“Black hole sensitivities in Einstein-scalar-Gauss-Bonnet gravity,”**
F. L. Julié, *H. O. Silva*, E. Berti and N. Yunes,
Phys. Rev. D **105**, no.12, 124031 (2022)
[<https://journals.aps.org/prd/pdf/10.1103/PhysRevD.105.124031>]
52. **“How do spherical black holes grow monopole hair?,”**
A. H. K. R., E. R. Most, J. Noronha, H. Witek and N. Yunes,
Phys. Rev. D **105**, no.6, 064041 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.105.064041>]
53. **“Are Parametrized Tests of General Relativity with Gravitational Waves Robust to Unknown Higher Post-Newtonian Order Effects?,”**
S. Perkins and N. Yunes,
Phys. Rev. D **105**, no.12, 124047 (2022)
[<https://journals.aps.org/prd/pdf/10.1103/PhysRevD.105.124047>]
54. **“Black Hole Superradiance in Dynamical Chern-Simons Gravity,”**
S. Alexander, G. Gabadadze, L. Jenks and N. Yunes,
Phys. Rev. D **107**, no.8, 084016 (2023)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.107.084016>]
55. **“Finding Structure in the Speed of Sound of Supranuclear Matter from Binary Love Relations,”**
H. Tan, V. Dexheimer, J. Noronha-Hostler and N. Yunes,
Phys. Rev. Lett. **128**, no.16, 161101 (2022)
[<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.128.161101>]
56. **“Blandford-Znajek process in quadratic gravity,”**
J. Dong, *N. Patiño*, *Y. Xie*, *A. Cárdenas-Avendaño*, C. F. Gammie and N. Yunes,
Phys. Rev. D **105**, no.4, 044008 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.105.044008>]
57. **“Spherical accretion in alternative theories of gravity,”**
A. Bauer, *A. Cárdenas-Avendaño*, C. F. Gammie and N. Yunes,
Astrophys. J. **925**, no.2, 119 (2022)
[<https://iopscience.iop.org/article/10.3847/1538-4357/ac3a03>]
58. **“Projecting the likely importance of weak-interaction-driven bulk viscosity in neutron star mergers,”**
E. R. Most, S. P. Harris, C. Plumberg, M. G. Alford, J. Noronha, J. Noronha-Hostler, F. Pretorius,
H. Witek and N. Yunes, MNRAS 509, Issue 1, January 2022
[<https://academic.oup.com/mnras/article/509/1/1096/6378903>]
59. **“Ready-to-use analytic model for gravitational waves from a hierarchical triple with Kozai-Lidov oscillations,”**
R. S. Chandramouli and N. Yunes,
Phys. Rev. D **105**, no.6, 064009 (2022)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.105.064009>]
60. **“Cosmology with Love,”**
D. Chatterjee, *A. H. K. R.*, G. Holder, D. E. Holz, *S. Perkins*, K. Yagi and N. Yunes,
Phys. Rev. D **104** (2021) 8, 083528
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.083528>]

61. **“Extreme matter meets extreme gravity: Ultraheavy neutron stars with phase transitions,”**
H. Tan, T. Dore, V. Dexheimer, J. Noronha-Hostler and N. Yunes,
 Phys. Rev. D **105**, no.2, 023018 (2022)
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.105.023018\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.105.023018)
62. **“Improved gravitational-wave constraints on higher-order curvature theories of gravity,”**
S. E. Perkins, R. Nair, H. O. Silva and N. Yunes,
 Phys. Rev. D **104** (2021) 2, 024060
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.024060\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.024060)
63. **“Updated Binary Pulsar Constraints on Einstein-æther Theory in Light of Gravitational Wave Constraints on the Speed of Gravity,”**
T. Gupta, M. Herrero-Valea, D. Blas, E. Barausse, N. Cornish, K. Yagi and N. Yunes,
 Class. Quant. Grav. **38** (2021) 19, 195003
[\[https://iopscience.iop.org/article/10.1088/1361-6382/ac1a69\]](https://iopscience.iop.org/article/10.1088/1361-6382/ac1a69)
64. **“The Chern-Simons Caps for Rotating Black Holes,”**
S. Alexander, G. Gabadadze, L. Jenks and N. Yunes,
 Phys. Rev. D **104** (2021) 6, 064033
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.064033\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.104.064033)
65. **“Petrov type, principal null directions, and Killing tensors of slowly rotating black holes in quadratic gravity,”**
C. B. Owen, N. Yunes and H. Witek,
 Phys. Rev. D **103**, no.12, 124057 (2021).
[\[https://journals.aps.org/prd/abstract/10.1103/PhysRevD.103.124057\]](https://journals.aps.org/prd/abstract/10.1103/PhysRevD.103.124057)
66. **“Quasinormal modes of slowly-rotating black holes in dynamical Chern-Simons gravity,”**
P. K. Wagle, N. Yunes and H. O. Silva,
 Phys. Rev. D **105**, no.12, 124003 (2022)
[\[https://journals.aps.org/prd/pdf/10.1103/PhysRevD.105.124003\]](https://journals.aps.org/prd/pdf/10.1103/PhysRevD.105.124003)
67. **“Square Peg in a Circular Hole: Choosing the Right Ansatz for Isolated Black Holes in Generic Gravitational Theories,”**
Y. Xie, J. Zhang, H. O. Silva, C. de Rham, H. Witek and N. Yunes,
 Phys. Rev. Lett. **126**, no.24, 241104 (2021)
[\[https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.126.241104\]](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.126.241104)
68. **“The Role of Strong Gravity and the Nuclear Equation of State on Neutron-Star Common-Envelope Accretion,”**
A. M. Holgado, H. O. Silva, P. M. Ricker and N. Yunes,
 Astrophys. J. Lett. **910**, no.2, L22 (2021).
[\[https://iopscience.iop.org/article/10.3847/2041-8213/abecdd\]](https://iopscience.iop.org/article/10.3847/2041-8213/abecdd)
69. **“Dynamical Descalarization in Binary Black Hole Mergers,”**
H. O. Silva, H. Witek, M. Elley and N. Yunes,
 Phys. Rev. Lett. **127**, no.3, 031101 (2021)
[\[https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.127.031101\]](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.127.031101)
70. **“Probing Fundamental Physics with Gravitational Waves: The Next Generation,”**
S. E. Perkins, N. Yunes and E. Berti,
 Phys. Rev. D **103**, no.4, 044024 (2021)
[\[https://inspirehep.net/literature/1823770\]](https://inspirehep.net/literature/1823770)

71. **“Future physics perspectives on the equation of state from heavy ion collisions to neutron stars,”**
V. Dexheimer, J. Noronha, J. Noronha-Hostler, N. Yunes and C. Ratti,
J. Phys. G **48**, no.7, 073001 (2021)
[<https://inspirehep.net/literature/1823730>]
72. **“Numerical black hole solutions in modified gravity theories: Spherical symmetry case,”**
A. Sullivan, N. Yunes and T. P. Sotiriou,
Phys. Rev. D **101**, no.4, 044024 (2020)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.103.124058>]
73. **“Spin-induced scalarized black holes,”**
C. A. R. Herdeiro, E. Radu, *H. O. Silva*, T. P. Sotiriou and N. Yunes,
Phys. Rev. Lett. **126**, no.1, 011103 (2021)
[<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.126.011103>]
74. **“Surface of rapidly-rotating neutron stars: Implications to neutron star parameter estimation,”**
H. O. Silva, G. Pappas, N. Yunes and K. Yagi,
Phys. Rev. D **103**, no.6, 063038 (2021)
[<https://journals.aps.org/prd/abstract/10.1103/PhysRevD.103.063038>]
75. **“Neutron Star Equation of State in light of GW190814,”**
H. Tan, J. Noronha-Hostler and N. Yunes, Phys. Rev. Lett. **125**, no.26, 261104 (2020)
[<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.125.261104>]
76. **“Astrophysical and theoretical physics implications from multimessenger neutron star observations,”**
H. O. Silva, A. M. Holgado, A. Cárdenas-Avendaño and N. Yunes,
Phys. Rev. Lett. **126**, no.18, 181101 (2021)
[<https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.125.261104>]
77. **“Constraining Gravity with Eccentric Gravitational Waves: Projected Upper Bounds and Model Selection,”**
B. Moore and N. Yunes,
Class. Quant. Grav. **37**, no.16, 165006 (2020)
[<https://inspirehep.net/literature/1780838>]
78. **“Improved binary pulsar constraints on the parametrized post-Einsteinian framework,”**
R. Nair and N. Yunes,
Phys. Rev. D **101**, no.10, 104011 (2020)
[<https://inspirehep.net/literature/1779007>]
79. **“Prospects for Fundamental Physics with LISA,”**
E. Barausse, E. Berti, T. Hertog, S. A. Hughes, P. Jetzer, P. Pani, T. P. Sotiriou, N. Tamanini, H. Witek and K. Yagi, *et al.*
Gen. Rel. Grav. **52**, no.8, 81 (2020)
[<https://inspirehep.net/literature/1777475>]
80. **“Gravitational-wave versus X-ray tests of strong-field gravity,”**
A. Cardenas-Avendano, S. Nampalliwar and N. Yunes,
Class. Quant. Grav. **37**, no.13, 135008 (2020)
[<https://inspirehep.net/literature/1771393>]

81. **“Structure of the singular ring in Kerr-like metrics,”**
P. T. Chruściel, M. Maliborski and N. Yunes,
Phys. Rev. D **101**, no.10, 104048 (2020)
[<https://inspirehep.net/literature/1770485>]
82. **“Gravitational waves from the quasicircular inspiral of compact binaries in Einstein-aether theory,”**
C. Zhang, X. Zhao, A. Wang, B. Wang, K. Yagi, N. Yunes, W. Zhao and T. Zhu,
Phys. Rev. D **101**, no.4, 044002 (2020)
[<https://inspirehep.net/literature/1766904>]
83. **“Polarization modes of gravitational waves in Quadratic Gravity”**
P. Wagle, A. Saffer and N. Yunes.
Phys. Rev. D **100**, no.12, 124007 (2019)
[<http://inspirehep.net/record/1758684>]
84. **“Data Analysis Implications of Moderately Eccentric Gravitational Waves”**
B. Moore and N. Yunes.
Class. Quant. Grav. **37**, no.22, 225015 (2020)
[<http://inspirehep.net/record/1757523>]
85. **“Improved Constraints on Modified Gravity with Eccentric Gravitational Waves”**
S. Ma and N. Yunes.
Phys. Rev. D **100**, no.12, 124032 (2019)
[<http://inspirehep.net/record/1750344>]
86. **“More than the sum of its parts: Combining parametrized tests of extreme gravity”**
H. O. Silva and N. Yunes.
Phys. Rev. D **100**, no. 8, 084034 (2019)
[<http://inspirehep.net/record/1737779>]
87. **“Gravitational Instability of Exotic Compact Objects”**
A. Addazi, A. Marcianò and N. Yunes.
Eur. Phys. J. C **80**, no.1, 36 (2020).
[<http://inspirehep.net/record/1735821>]
88. **“Fundamental Physics Implications for Higher-Curvature Theories from Binary Black Hole Signals in the LIGO-Virgo Catalog GWTC-1”**
R. Nair, S. Perkins, H. O. Silva and N. Yunes.
Phys. Rev. Lett. **123**, no. 19, 191101 (2019).
[<http://inspirehep.net/record/1763242>]
89. **“The new frontier of gravitational waves”**
M. Coleman Miller and N. Yunes.
Nature **568**, no. 7753, 469 (2019).
[<http://inspirehep.net/record/1731541>]
90. **“Extreme Gravity and Fundamental Physics”**
B. S. Sathyaprakash *et al.*.
White paper for Astro2020 Decadal Survey.
[<http://inspirehep.net/record/1726343>]

91. **“Exterior spacetime of relativistic stars in scalar-Gauss-Bonnet gravity”**
A. Saffer, H. O. Silva and N. Yunes.
 Phys. Rev. D **100**, no. 4, 044030 (2019)
[\[http://inspirehep.net/record/1725735\]](http://inspirehep.net/record/1725735)
92. **“A 3PN Fourier Domain Waveform for Non-Spinning Binaries with Moderate Eccentricity”**
B. Moore and N. Yunes.
 Class. Quant. Grav. **36**, no. 18, 185003 (2019)
[\[http://inspirehep.net/record/1724883\]](http://inspirehep.net/record/1724883)
93. **“Experimental Relativity with Accretion Disk Observations”**
A. Cardenas-Avendano, J. Godfrey, N. Yunes and A. Lohfink.
 Phys. Rev. D **100**, no. 2, 024039 (2019)
[\[http://inspirehep.net/record/1724490\]](http://inspirehep.net/record/1724490)
94. **“Equation-of-state insensitive relations after GW170817”**
Z. Carson, K. Chatziioannou, C. J. Haster, K. Yagi and N. Yunes.
 Phys. Rev. D **99**, no. 8, 083016 (2019)
[\[http://inspirehep.net/record/1724466\]](http://inspirehep.net/record/1724466)
95. **“Tests of General Relativity and Fundamental Physics with Space-based Gravitational Wave Detectors”**
E. Berti et al.
 White paper for Astro2020 Decadal Survey.
[\[http://inspirehep.net/record/1724147\]](http://inspirehep.net/record/1724147)
96. **“Exact Black Hole Solutions in Modified Gravity Theories: Spherical Symmetry Case”**
A. Sullivan, N. Yunes and T. P. Sotiriou.
 Phys. Rev. D **101**, no.4, 044024 (2020)
[\[http://inspirehep.net/record/1724074\]](http://inspirehep.net/record/1724074)
97. **“Neutron star pulse profile observations as extreme gravity probes”**
H. O. Silva and N. Yunes.
 Class. Quant. Grav. **36**, no. 17, 17LT01 (2019)
[\[http://inspirehep.net/record/1722269\]](http://inspirehep.net/record/1722269)
98. **“Binary Pulsar constraints on massless scalar-tensor theories using Bayesian statistics”**
D. Anderson, P. Freire and N. Yunes.
 Class. Quant. Grav. **36**, no. 22, 225009 (2019)
[\[http://inspirehep.net/record/1712237\]](http://inspirehep.net/record/1712237)
99. **“Scalar charges and scaling relations in massless scalar-tensor theories”**
D. Anderson and N. Yunes.
 Class. Quant. Grav. **36**, no. 16, 165003 (2019)
[\[http://inspirehep.net/record/1712199\]](http://inspirehep.net/record/1712199)
100. **“Hair loss in parity violating gravity”**
P. Wagle, N. Yunes, D. Garfinkle and L. Bieri.
 Class. Quant. Grav. **36**, no. 11, 115004 (2019)
[\[http://inspirehep.net/record/1709155\]](http://inspirehep.net/record/1709155)

101. **“Probing Screening and the Graviton Mass with Gravitational Waves”**
S. Perkins and *N. Yunes*.
 Class. Quant. Grav. **36**, no. 5, 055013 (2019)
[\[http://inspirehep.net/record/1702327\]](http://inspirehep.net/record/1702327)
102. **“Binary White Dwarfs as Laboratories for Extreme Gravity with LISA”**
T. B. Littenberg and *N. Yunes*.
 Class. Quant. Grav. **36**, no. 9, 095017 (2019)
[\[http://inspirehep.net/record/1702173\]](http://inspirehep.net/record/1702173)
103. **“Weakly-gravitating objects in dynamical Chern-Simons gravity and constraints with gravity probe B”**
Y. Nakamura, D. Kikuchi, K. Yamada, H. Asada and *N. Yunes*.
 Class. Quant. Grav. **36**, no. 10, 105006 (2019)
[\[http://inspirehep.net/record/1701185\]](http://inspirehep.net/record/1701185)
104. **“Can we probe Planckian corrections at the horizon scale with gravitational waves?”**
A. Addazi, A. Marciano and *N. Yunes*.
 Phys. Rev. Lett. **122**, no. 8, 081301 (2019)
[\[http://inspirehep.net/record/1700199\]](http://inspirehep.net/record/1700199)
105. **“The Eccentric Behavior of Inspiring Compact Binaries”**
N. Loutrel, S. Liebersbach, N. Yunes and *N. Cornish*.
 Class. Quant. Grav. **36**, no. 2, 025004 (2019)
[\[http://inspirehep.net/record/1697330\]](http://inspirehep.net/record/1697330)
106. **“An Entropy-Area Law for Neutron Stars Near the Black Hole Threshold”**
S. H. Alexander, K. Yagi and *N. Yunes*.
 Class. Quant. Grav. **36**, no. 1, 015010 (2019)
[\[http://inspirehep.net/record/1696718\]](http://inspirehep.net/record/1696718)
107. **“Frequency-domain waveform approximants capturing Doppler shifts”**
K. Chamberlain, C. J. Moore, D. Gerosa and *N. Yunes*.
 Phys. Rev. D **99**, no. 2, 024025 (2019)
[\[http://inspirehep.net/record/1693817\]](http://inspirehep.net/record/1693817)
108. **“Observing the Shadows of Stellar-Mass Black Holes with Binary Companions”**
H. Gott, D. Ayzenberg, N. Yunes and *A. Lohfink*.
 Class. Quant. Grav. **36**, no. 5, 055007 (2019)
[\[http://inspirehep.net/record/1688669\]](http://inspirehep.net/record/1688669)
109. **“Hidden-Sector Modifications to Gravitational Waves From Binary Inspirals”**
S. Alexander, E. McDonough, R. Sims and *N. Yunes*.
 Class. Quant. Grav. **35**, no. 23, 235012 (2018)
[\[http://inspirehep.net/record/1687843\]](http://inspirehep.net/record/1687843)
110. **“Neutron star pulse profiles in scalar-tensor theories of gravity”**
H. O. Silva and *N. Yunes*.
 Phys. Rev. D **99**, no. 4, 044034 (2019)
[\[http://inspirehep.net/record/1687157\]](http://inspirehep.net/record/1687157)

111. **“Black Hole Shadow as a Test of General Relativity: Quadratic Gravity”**
 D. Ayzenberg and N. Yunes.
 Class. Quant. Grav. **35**, no. 23, 235002 (2018)
[\[http://inspirehep.net/record/1683523\]](http://inspirehep.net/record/1683523)
112. **“Angular Momentum Loss for a Binary System in Einstein-Æther Theory”**
 A. Saffer and N. Yunes.
 Phys. Rev. D **98**, no. 12, 124015 (2018)
[\[http://inspirehep.net/record/1683449\]](http://inspirehep.net/record/1683449)
113. **“A Fourier Domain Waveform for Non-Spinning Binaries with Arbitrary Eccentricity”**
 B. Moore, T. Robson, N. Loutrel and N. Yunes.
 Class. Quant. Grav. **35**, no. 23, 235006 (2018). Selected for *CQG Highlights*
[\[http://inspirehep.net/record/1683137\]](http://inspirehep.net/record/1683137)
114. **“Spin-Precessing Black Hole Binaries in Dynamical Chern-Simons Gravity”**
 N. Loutrel, T. Tanaka and N. Yunes.
 Phys. Rev. D **98**, no. 6, 064020 (2018)
[\[http://inspirehep.net/record/1678743\]](http://inspirehep.net/record/1678743)
115. **“Scalar Tops and Perturbed Quadrupoles: Probing Fundamental Physics with Spin-Precessing Binaries”**
 N. Loutrel, T. Tanaka and N. Yunes.
 Class. Quant. Grav. **35**, no. 16, 165010 (2018)
[\[http://inspirehep.net/record/1678648\]](http://inspirehep.net/record/1678648)
116. **“The exact dynamical Chern-Simons metric for a spinning black hole possesses a fourth constant of motion: A dynamical-systems-based conjecture”**
 A. Cárdenas-Avedaño, A. F. Gutierrez, L. A. Pachón and N. Yunes.
 Class. Quant. Grav. **35**, no. 16, 165010 (2018). Selected for *CQG Highlights*
[\[http://inspirehep.net/record/1667219\]](http://inspirehep.net/record/1667219)
117. **“Nature Abhors a Circle”**
 N. Loutrel, S. Liebersbach, N. Yunes and N. Cornish.
 Class. Quant. Grav. **36**, no. 1, 01 (2019)
[\[http://inspirehep.net/record/1650905\]](http://inspirehep.net/record/1650905)
118. **“Extreme Gravity Tests with Gravitational Waves from Compact Binary Coalescences: (II) Ring-down”**
 E. Berti, K. Yagi, H. Yang and N. Yunes.
 Gen. Rel. Grav. **50**, no. 5, 49 (2018)
[\[http://inspirehep.net/record/1647541\]](http://inspirehep.net/record/1647541)
119. **“Extreme Gravity Tests with Gravitational Waves from Compact Binary Coalescences: (I) Inspiral-Merger”**
 E. Berti, K. Yagi and N. Yunes.
 Gen. Rel. Grav. **50**, no. 4, 46 (2018)
[\[http://inspirehep.net/record/1647351\]](http://inspirehep.net/record/1647351)
120. **“Constraining alternative theories of gravity using pulsar timing arrays”**
 N. J. Cornish, L. O’Beirne, S. R. Taylor and N. Yunes.
 Phys. Rev. Lett. **120**, no. 18, 181101 (2018)
[\[http://inspirehep.net/record/1644341\]](http://inspirehep.net/record/1644341)

121. **“Gravitational Waves Probes of Parity Violation in Compact Binary Coalescence”**
 S. H. Alexander and N. Yunes.
 Phys. Rev. D **97**, no. 6, 064033 (2018)
[\[http://inspirehep.net/record/1641220\]](http://inspirehep.net/record/1641220)
122. **“The Gravitational Wave Stress-Energy (pseudo)-Tensor in Modified Gravity”**
 A. Saffer, N. Yunes and K. Yagi.
 Class. Quant. Grav. **35**, no. 5, 055011 (2018)
[\[http://inspirehep.net/record/1632161\]](http://inspirehep.net/record/1632161)
123. **“I-Love-Q Relations for Neutron Stars in dynamical Chern Simons Gravity”**
 T. Gupta, B. Majumder, K. Yagi and N. Yunes.
 Class. Quant. Grav. **35**, no. 2, 025009 (2018). Editor’s Suggestion
[\[http://inspirehep.net/record/1631933\]](http://inspirehep.net/record/1631933)
124. **“Gravitational Waves and Their Mathematics”**
 L. Bieri, D. Garfinkle and N. Yunes.
 AMS Notices, Vol. 64, Issue 07, 2017, (August issue 2017)
[\[http://www.ams.org/publications/journals/notices/201707/rnoti-p693.pdf\]](http://www.ams.org/publications/journals/notices/201707/rnoti-p693.pdf)
125. **“I-Love-Q to the extreme”**
 H. O. Silva and N. Yunes.
 Class. Quant. Grav. **35**, no. 1, 015005 (2018)
[\[http://inspirehep.net/record/1628370\]](http://inspirehep.net/record/1628370)
126. **“Slowly-Rotating Neutron Stars in Massive Bigravity”**
 A. Sullivan and N. Yunes.
 Class. Quant. Grav. **35**, no. 4, 045003 (2018)
[\[http://inspirehep.net/record/1622727\]](http://inspirehep.net/record/1622727)
127. **“Gravitational wave spectroscopy of binary neutron star merger remnants with mode stacking”**
 H. Yang, V. Paschalidis, K. Yagi, L. Lehner, F. Pretorius and N. Yunes.
 Phys. Rev. D **97**, 024049 (2018)
[\[arXiv:1707.00207 \[gr-qc\]\]](https://arxiv.org/abs/1707.00207)
128. **“Gravitational wave memory in Λ CDM cosmology”**
 L. Bieri, D. Garfinkle and N. Yunes.
 Class. Quant. Grav. **34**, no. 21, 215002 (2017)
[\[arXiv:1706.02009 \[gr-qc\]\]](https://arxiv.org/abs/1706.02009)
129. **“Solar System Constraints on Scalar-Tensor Gravity with Positive Coupling Constant upon Cosmological Evolution of the Scalar Field”**
 D. Anderson and N. Yunes.
 Phys. Rev. D **96**, no. 6, 064037 (2017)
[\[arXiv:1705.06351 \[gr-qc\]\]](https://arxiv.org/abs/1705.06351)
130. **“Theoretical Physics Implications of Gravitational Wave Observation with Future Detectors”**
 K. Chamberlain and N. Yunes.
 Phys. Rev. D **96**, no. 8, 084039 (2017)
[\[arXiv:1704.08268 \[gr-qc\]\]](https://arxiv.org/abs/1704.08268)

131. **“Cosmological Evolution and Solar System Consistency of Massive Scalar-Tensor Gravity”**
T. A. de Pirey Saint Alby and *N. Yunes*.
 Phys. Rev. D **96**, no. 6, 064040 (2017)
[\[arXiv:1703.06341 \[gr-qc\]\]](#)
132. **“Constructing Gravitational Waves from Generic Spin-Precessing Compact Binary Inspirals”**
K. Chatziioannou, *A. Klein*, *N. Yunes* and *N. Cornish*.
 Phys. Rev. D **95**, no. 10, 104004 (2017)
[\[arXiv:1703.03967 \[gr-qc\]\]](#)
133. **“Eccentric Gravitational Wave Bursts in the Post-Newtonian Formalism”**
N. Loutrel and *N. Yunes*.
 Class. Quant. Grav. **34**, no. 13, 135011 (2017). Selected for *CQG Highlights*
[\[arXiv:1702.01818 \[gr-qc\]\]](#)
134. **“Black Hole Continuum Spectra as a Test of General Relativity: Quadratic Gravity”**
D. Ayzenberg and *N. Yunes*.
 Class. Quant. Grav. **34**, no. 11, 115003 (2017)
[\[arXiv:1701.07003 \[gr-qc\]\]](#)
135. **“Black hole spectroscopy with coherent mode stacking”**
H. Yang, *K. Yagi*, *J. Blackman*, *L. Lehner*, *V. Paschalidis*, *F. Pretorius* and *N. Yunes*.
 Phys. Rev. Lett. **118**, no. 16, 161101 (2017)
[\[arXiv:1701.05808 \[gr-qc\]\]](#)
136. **“Approximate Universal Relations among Tidal Parameters for Neutron Star Binaries”**
K. Yagi and *N. Yunes*.
 Class. Quant. Grav. **34**, no. 1, 015006 (2017)
[\[arXiv:1608.06187 \[gr-qc\]\]](#)
137. **“Improved next-to-leading order tidal heating and torquing of a Kerr black hole”**
K. Chatziioannou, *E. Poisson* and *N. Yunes*.
 Phys. Rev. D **94**, no. 8, 084043 (2016)
[\[arXiv:1608.02899 \[gr-qc\]\]](#)
138. **“The Effect of Cosmological Evolution on Solar System Constraints and on the Scalarization of Neutron Stars in Massless Scalar-Tensor Theories”**
D. Anderson, *N. Yunes* and *E. Barausse*.
 Phys. Rev. D **94**, no. 10, 104064 (2016)
[\[arXiv:1607.08888 \[gr-qc\]\]](#)
139. **“Hereditary Effects in Eccentric Compact Binary Inspirals to Third Post-Newtonian Order”**
N. Loutrel and *N. Yunes*.
 Accepted for publication in Phys. Rev. D
[arXiv:1607.05409 \[gr-qc\]](#)
140. **“Analytic Gravitational Waveforms for Generic Precessing Binary Inspirals”**
K. Chatziioannou, *A. Klein*, *N. Cornish* and *N. Yunes*.
 Phys. Rev. Lett. **118**, no. 5, 051101 (2017)
[\[http://inspirehep.net/record/1468607\]](http://inspirehep.net/record/1468607)

141. **“Theoretical Physics Implications of the Binary Black-Hole Mergers GW150914 and GW151226”**
 N. Yunes, K. Yagi and F. Pretorius.
 Phys. Rev. D **94**, no. 8, 084002 (2016) [selected as Editor’s Choice]
[\[arXiv:1603.08955 \[gr-qc\]\]](#)
142. **“Theory-Agnostic Constraints on Black-Hole Dipole Radiation with Multiband Gravitational-Wave Astrophysics”**
 E. Barausse, N. Yunes and K. Chamberlain.
 Phys. Rev. Lett. **116**, no. 24, 241104 (2016)
[\[arXiv:1603.04075 \[gr-qc\]\]](#)
143. **“Can the Slow-Rotation Approximation be used in Electromagnetic Observations of Black Holes?”**
 D. Ayzenberg, K. Yagi and N. Yunes.
 Class. Quant. Grav. **33**, no. 10, 105006 (2016)
[\[arXiv:1601.06088 \[astro-ph.HE\]\]](#)
144. **“I-Love-Q Relations: From Compact Stars to Black Holes”**
 K. Yagi and N. Yunes.
 Class. Quant. Grav. **33**, no. 9, 095005 (2016)
[\[arXiv:1601.02171 \[gr-qc\]\]](#)
145. **“Extremal Black Holes in Dynamical Chern-Simons Gravity”**
 R. McNees, L. C. Stein and N. Yunes.
 Class. Quant. Grav. **33**, no. 23, 235013 (2016)
[\[arXiv:1512.05453 \[gr-qc\]\]](#)
146. **“Binary Love Relations”**
 K. Yagi and N. Yunes.
 Class. Quant. Grav. **33**, no. 13, 13LT01 (2016). Selected for *CQG Highlights*
[\[arXiv:1512.02639 \[gr-qc\]\]](#)
147. **“Challenging the Presence of Scalar Charge and Dipolar Radiation in Binary Pulsars”**
 K. Yagi, L. C. Stein and N. Yunes.
 Phys. Rev. D **93**, no. 2, 024010 (2016)
[\[arXiv:1510.02152 \[gr-qc\]\]](#)
148. **“Probing the Internal Composition of Neutron Stars with Gravitational Waves”**
 K. Chatziioannou, K. Yagi, A. Klein, N. Cornish and N. Yunes.
 Phys. Rev. D **92**, no. 10, 104008 (2015)
[\[arXiv:1508.02062 \[gr-qc\]\]](#)
149. **“Four-Hair Relations for Differentially Rotating Neutron Stars in the Weak-Field Limit”**
 J. Bretz, K. Yagi and N. Yunes.
 Phys. Rev. D **92**, no. 8, 083009 (2015)
[\[arXiv:1507.02278 \[gr-qc\]\]](#)
150. **“Improved Universality in the Neutron Star Three-Hair Relations”**
 B. Majumder, K. Yagi and N. Yunes.
 Phys. Rev. D **92**, no. 2, 024020 (2015)
[\[arXiv:1504.02506 \[gr-qc\]\]](#)

151. **“I-Love-Q Anisotropically”**
K. Yagi and *N. Yunes*,
 Phys. Rev. D **91**, no. 12, 123008 (2015)
[\[arXiv:1503.02726 \[gr-qc\]\]](#)
152. **“Relating Follicly-Challenged Compact Stars to Bald Black Holes”**
K. Yagi and *N. Yunes*,
 Phys. Rev. D **91**, no. 10, 103003 (2015)
[\[arXiv:1502.04131 \[gr-qc\]\]](#)
153. **“Projected Constraints on Lorentz-Violating Gravity with Gravitational Waves”**
D. Hansen, *N. Yunes* and *K. Yagi*.
 Phys. Rev. D **91**, no. 8, 082003 (2015)
[\[arXiv:1412.4132 \[gr-qc\]\]](#)
154. **“Fast Frequency-domain Waveforms for Spin-Precessing Binary Inspirals”**
A. Klein, *N. Cornish* and *N. Yunes*.
 Phys. Rev. D **90**, no. 12, 124029 (2014)
[\[arXiv:1408.5158 \[gr-qc\]\]](#)
155. **“Accurate and efficient waveforms for compact binaries on eccentric orbits”**
E. A. Huerta, *P. Kumar*, *S. T. McWilliams*, *R. O’Shaughnessy* and *N. Yunes*.
 Phys. Rev. D **90**, no. 8, 084016 (2014)
[\[arXiv:1408.3406 \[gr-qc\]\]](#)
156. **“Projected Constraints on Scalarization with Gravitational Waves from Neutron Star Binaries”**
L. Sampson, *N. Yunes*, *N. Cornish*, *M. Ponce*, *E. Barausse*, *A. Klein*, *C. Palenzuela* and *L. Lehner*.
 Phys. Rev. D **90**, no. 12, 124091 (2014)
[\[arXiv:1407.7038 \[gr-qc\]\]](#)
157. **“Why I-Love-Q: Explaining why universality emerges in compact objects”**
K. Yagi, *L. C. Stein*, *G. Pappas*, *N. Yunes* and *T. A. Apostolatos*.
 Phys. Rev. D **90**, no. 6, 063010 (2014)
[\[arXiv:1406.7587 \[gr-qc\]\]](#)
158. **“Toward realistic and practical no-hair relations for neutron stars in the nonrelativistic limit”**
K. Chatziioannou, *K. Yagi* and *N. Yunes*.
 Phys. Rev. D **90**, no. 6, 064030 (2014)
[\[arXiv:1406.7135 \[gr-qc\]\]](#)
159. **“Gravitational-Wave Mediated Preheating”**
S. Alexander, *S. Cormack*, *A. Marciano* and *N. Yunes*.
 Phys. Lett. B **743**, 82 (2015)
[\[arXiv:1405.4288 \[gr-qc\]\]](#)
160. **“Slowly-Rotating Black Holes in Einstein-Dilaton-Gauss-Bonnet Gravity: Quadratic Order in Spin Solutions”**
D. Ayzenberg and *N. Yunes*.
 Phys. Rev. D **90**, 044066 (2014)
[\[arXiv:1405.2133 \[gr-qc\]\]](#)

161. **“Detection and Parameter Estimation of Gravitational Waves from Compact Binary Inspirals with Analytical Double-Precessing Templates”**
K. Chatziioannou, N. Cornish, A. Klein and N. Yunes.
 Phys. Rev. D **89**, 104023 (2014)
[\[arXiv:1404.3180 \[gr-qc\]\]](#)
162. **“Parametrized post-Einsteinian framework for gravitational wave bursts”**
N. Loutrel, N. Yunes and F. Pretorius.
 Phys. Rev. D **90**, no. 10, 104010 (2014)
[\[arXiv:1404.0092 \[gr-qc\]\]](#)
163. **“Effective No-Hair Relations for Neutron Stars and Quark Stars: Relativistic Results”**
K. Yagi, K. Kyutoku, G. Pappas, N. Yunes and T. A. Apostolatos.
 Phys. Rev. D **89**, 124013 (2014)
[\[arXiv:1403.6243 \[gr-qc\]\]](#)
164. **“Spin-Precession: Breaking the Black Hole–Neutron Star Degeneracy”**
K. Chatziioannou, N. Cornish, A. Klein and N. Yunes.
 Astrophys. J. **798**, no. 1, L17 (2015)
[\[arXiv:1402.3581 \[gr-qc\]\]](#)
165. **“Approximate black hole binary spacetime via asymptotic matching”**
B. C. Mundim, H. Nakano, N. Yunes, M. Campanelli, S. C. Noble and Y. Zlochower.
 Phys. Rev. D **89**, 084008 (2014)
[\[arXiv:1312.6731 \[gr-qc\]\]](#)
166. **“Three-Hair Relations for Rotating Stars: Nonrelativistic Limit”**
L. C. Stein, K. Yagi and N. Yunes.
 Astrophys. J. **788**, 15 (2014)
[\[arXiv:1312.4532 \[gr-qc\]\]](#)
167. **“Constraints on Einstein-Æther theory and Horava gravity from binary pulsar observations”**
K. Yagi, D. Blas, E. Barausse and N. Yunes.
 Phys. Rev. D **89**, 084067 (2014)
[\[arXiv:1311.7144 \[gr-qc\]\]](#)
168. **“Mis-Modelling in Gravitational Wave Astronomy: The Trouble With Templates”**
L. Sampson, N. Cornish and N. Yunes.
 Phys. Rev. D **89**, 064037 (2014)
[\[arXiv:1311.4898 \[gr-qc\]\]](#)
169. **“Love can be Tough to Measure”**
K. Yagi and N. Yunes.
 Phys. Rev. D **89**, 021303 (2014)
[\[arXiv:1310.8358 \[gr-qc\]\]](#)
170. **“Linear Stability Analysis of Dynamical Quadratic Gravity”**
D. Ayzenberg, K. Yagi and N. Yunes.
 Phys. Rev. D **89**, 044023 (2014)
[\[arXiv:1310.6392 \[gr-qc\]\]](#)

171. **“Applicability of the Newman-Janis Algorithm to Black Hole Solutions of Modified Gravity Theories”**
D. Hansen and *N. Yunes*.
 Phys. Rev. D **88**, no. 10, 104020 (2013)
[\[arXiv:1308.6631 \[gr-qc\]\]](#)
172. **“Rosetta stone for parametrized tests of gravity”**
L. Sampson, *N. Yunes* and *N. Cornish*.
 Phys. Rev. D **88**, no. 6, 064056 (2013),
[\[arXiv:1307.8144 \[gr-qc\]\]](#)
173. **“Strong Binary Pulsar Constraints on Lorentz Violation in Gravity”**
K. Yagi, *D. Blas*, *N. Yunes* and *E. Barausse*.
 Phys. Rev. Lett. **112**, 161101 (2014)
[\[arXiv:1307.6219 \[gr-qc\]\]](#)
174. **“Gravitational Waveforms for Precessing, Quasicircular Compact Binaries with Multiple Scale Analysis: Small Spin Expansion”**
K. Chatziioannou, *A. Klein*, *N. Yunes* and *N. Cornish*.
 Phys. Rev. D **88**, 063011 (2013)
[\[arXiv:1307.4418 \[gr-qc\]\]](#)
175. **“Gravitational waveforms for precessing, quasicircular binaries via multiple scale analysis and uniform asymptotics: The near spin alignment case”**
A. Klein, *N. Cornish* and *N. Yunes*.
 Phys. Rev. D **88**, no. 12, 124015 (2013)
[\[arXiv:1305.1932 \[gr-qc\]\]](#)
176. **“I-Love-Q Relations in Neutron Stars and their Applications to Astrophysics, Gravitational Waves and Fundamental Physics”**
K. Yagi and *N. Yunes*.
 Phys. Rev. D **88**, no. 2, 023009 (2013)
[\[arXiv:1303.1528 \[gr-qc\]\]](#)
177. **“Gravitational Wave Tests of Strong Field General Relativity with Binary Inspirals: Realistic Injections and Optimal Model Selection”**
L. Sampson, *N. Cornish* and *N. Yunes*.
 Phys. Rev. D **87**, 102001 (2013)
[\[arXiv:1303.1185 \[gr-qc\]\]](#)
178. **“I-Love-Q: Unexpected Universal Relations for Neutron Stars and Quark Stars”**
K. Yagi and *N. Yunes*.
 Science **26**, 365-368 (2013)
[\[arXiv:1302.4499 \[gr-qc\]\]](#)
179. **“Isolated and Binary Neutron Stars in Dynamical Chern-Simons Gravity”**
K. Yagi, *L. C. Stein*, *N. Yunes* and *T. Tanaka*.
 Phys. Rev. D **87**, 084058 (2013)
[\[arXiv:1302.1918 \[gr-qc\]\]](#)
180. **“Stealth Bias in Gravitational-Wave Parameter Estimation”**
M. Vallisneri and *N. Yunes*.

- Phys. Rev. D **87**, 102002 (2013)
[\[arXiv:1301.2627 \[gr-qc\]\]](#)
181. **“Spontaneous Generation of Angular Momentum in Holographic Theories”**
 H. Liu, H. Ooguri, B. Stoica and N. Yunes.
 Phys. Rev. Lett. **110**, 211601 (2013)
[\[arXiv:1212.3666 \[hep-th\]\]](#)
182. **“Tidal heating and torquing of a Kerr black hole to next-to-leading order in the tidal coupling”**
K. Chatziioannou, E. Poisson and N. Yunes.
 Phys. Rev. D **87**, 044022 (2013)
[\[arXiv:1211.1686 \[gr-qc\]\]](#)
183. **“Asymptotically Matched Spacetime Metric for Non-Precessing, Spinning Black Hole Binaries”**
 L. Gallouin, H. Nakano, N. Yunes and M. Campanelli.
 Class. Quant. Grav. **29**, 235013 (2012)
[\[arXiv:1208.6489 \[gr-qc\]\]](#)
184. **“Gravitational Waves from Quasi-Circular Black Hole Binaries in Dynamical Chern-Simons Gravity”**
K. Yagi, N. Yunes and T. Tanaka.
 Phys. Rev. Lett. **109**, 251105 (2012)
[\[arXiv:1208.5102 \[gr-qc\]\]](#)
185. **“Slowly Rotating Black Holes in Dynamical Chern-Simons Gravity: Deformation Quadratic in the Spin”**
K. Yagi, N. Yunes and T. Tanaka.
 Phys. Rev. D **86**, 044037 (2012)
[\[arXiv:1206.6130 \[gr-qc\]\]](#)
186. **“Resonant Post-Newtonian Eccentricity Excitation in Hierarchical Three-body Systems”**
 S. Naoz, B. Kocsis, A. Loeb and N. Yunes.
 Astrophys. J. **773**, 187 (2013)
[\[arXiv:1206.4316 \[astro-ph.SR\]\]](#)
187. **“Model-Independent Test of General Relativity: An Extended post-Einsteinian Framework with Complete Polarization Content”**
K. Chatziioannou, N. Yunes and N. Cornish.
 Phys. Rev. D **86**, 022004 (2012)
[\[arXiv:1204.2585 \[gr-qc\]\]](#)
188. **“Circumbinary MHD Accretion into Inspiring Binary Black Holes”**
 S. C. Noble, B. C. Mundim, H. Nakano, J. H. Krolik, M. Campanelli, Y. Zlochower and N. Yunes.
 Astrophys. J. **755**, 51 (2012)
[\[arXiv:1204.1073 \[astro-ph.HE\]\]](#)
189. **“Approximate Waveforms for Extreme-Mass-Ratio Inspirals: The Chimera Scheme”**
 C. F. Sopuerta and N. Yunes.
 J. Phys. Conf. Ser. **363**, 012021 (2012)
[\[arXiv:1201.5715 \[gr-qc\]\]](#)

190. **“NR/HEP: roadmap for the future”**
 V. Cardoso, L. Gualtieri, C. Herdeiro, U. Sperhake, P. M. Chesler, L. Lehner, S. C. Park and H. S. Reall *et al.*
 Class. Quant. Grav. **29**, 244001 (2012)
[\[arXiv:1201.5118 \[hep-th\]\]](#)
191. **“Late Inspiral and Merger of Binary Black Holes in Scalar-Tensor Theories of Gravity”**
 J. Healy, T. Bode, R. Haas, E. Pazos, P. Laguna, D. M. Shoemaker and N. Yunes.
 Class. Quant. Grav. **29**, 232002 (2012)
[\[arXiv:1112.3928 \[gr-qc\]\]](#)
192. **“Gravitational Waves from Extreme Mass-Ratio Inspirals as Probes of Scalar-Tensor Theories”**
N. Yunes, P. Pani and V. Cardoso.
 Phys. Rev. D **85**, 102003 (2012)
[\[arXiv:1112.3351 \[gr-qc\]\]](#)
193. **“Resonances in Extreme Mass-Ratio Inspirals: Asymptotic and Hyperasymptotic Analysis”**
 J. Gair, N. Yunes and C. M. Bender.
 J. Math. Phys. **53**, 032503 (2012)
[\[arXiv:1111.3605 \[gr-qc\]\]](#)
194. **“Post-Newtonian, Quasi-Circular Binary Inspirals in Quadratic Modified Gravity”**
 K. Yagi, L. C. Stein, N. Yunes and T. Tanaka.
 Phys. Rev. D **85**, 064022 (2012)
[\[arXiv:1110.5950 \[gr-qc\]\]](#)
195. **“Constraining Generic Lorentz Violation and the Speed of the Graviton with Gravitational Waves”**
 S. Mirshekari, N. Yunes and C. M. Will.
 Phys. Rev. D **85**, 024041 (2012)
[\[arXiv:1110.2720 \[gr-qc\]\]](#)
196. **“New Kludge Scheme for the Construction of Approximate Waveforms for Extreme-Mass-Ratio Inspirals”**
 C. F. Sopuerta and N. Yunes.
 Phys. Rev. D **84**, 124060 (2011)
[\[arXiv:1109.0572 \[gr-qc\]\]](#)
197. **“Approximate Waveforms for Extreme-Mass-Ratio Inspirals in Modified Gravity Spacetimes”**
 J. Gair and N. Yunes.
 Phys. Rev. D **84**, 064016 (2011)
[\[arXiv:1106.6313 \[gr-qc\]\]](#)
198. **“Gravitational Wave Tests of General Relativity with the Parameterized Post-Einsteinian Framework”**
 N. Cornish, L. Sampson, N. Yunes and F. Pretorius.
 Phys. Rev. D **84**, 062003 (2011)
[\[arXiv:1105.2088 \[gr-qc\]\]](#)
199. **“Observable Signatures of EMRI Black Hole Binaries Embedded in Thin Accretion Disks”**
 B. Kocsis, N. Yunes and A. Loeb.
 Phys. Rev. D **84**, 024032 (2011)
[\[arXiv:1104.2322 \[astro-ph.GA\]\]](#)

200. **“Accuracy of the post-Newtonian approximation. II. Optimal asymptotic expansion of the energy flux for quasicircular, extreme mass-ratio inspirals into a Kerr black hole”**
 Z. Zhang, N. Yunes and E. Berti.
 Phys. Rev. D **84**, 024029 (2011)
[\[arXiv:1103.6041 \[gr-qc\]\]](#)
201. **“Imprint of Accretion Disk-Induced Migration on Gravitational Waves from Extreme Mass Ratio Inspirals”**
N. Yunes, B. Kocsis, A. Loeb and Z. Haiman.
 Phys. Rev. Lett. **107**, 171103 (2011)
[\[arXiv:1103.4609 \[astro-ph.CO\]\]](#)
202. **“Bumpy Black Holes in Alternate Theories of Gravity”**
 S. Vigeland, N. Yunes and L. Stein
 Phys. Rev. D **83**, 104027 (2011)
[\[arXiv:1102.3706 \[gr-qc\]\]](#)
203. **“Non-Spinning Black Holes in Alternative Theories of Gravity”**
N. Yunes and L. C. Stein
 Phys. Rev. D **83**, 104002 (2011)
[\[arXiv:1101.2921 \[gr-qc\]\]](#)
204. **“Effective Gravitational Wave Stress-energy Tensor in Alternative Theories of Gravity”**
 L. C. Stein, N. Yunes and S. A. Hughes
 Phys. Rev. D **83**, 064038 (2011)
[\[arXiv:1012.3144 \[gr-qc\]\]](#)
205. **“Superkicks in ultrarelativistic encounters of spinning black holes”**
 U. Sperhake, E. Berti, V. Cardoso, F. Pretorius and N. Yunes
 Phys. Rev. D **83**, 024037 (2011)
[\[arXiv:1011.3281 \[gr-qc\]\]](#)
206. **“The Effect of Massive Perturbers on Extreme Mass-Ratio Inspiral Waveforms”**
N. Yunes, M. Coleman Miller and J. Thornburg
 Phys. Rev. D **83**, 044030 (2011)
[\[arXiv:1010.1721 \[astro-ph.GA\]\]](#)
207. **“Extreme Mass-Ratio Inspirals in the Effective-One-Body Approach: Quasi-Circular, Equatorial Orbits around a Spinning Black Hole”**
N. Yunes, A. Buonanno, S. A. Hughes, Y. Pan, E. Barausse, M. C. Miller and W. Thorne
 Phys. Rev. D **83**, 044044 (2011)
[\[arXiv:1009.6013 \[gr-qc\]\]](#)
208. **“A Tale of Two Jets”**
N. Yunes
 Science, vol. 329, issue 5994, pp. 908-909 (2010)
[\[arXiv:1009.0018 \[astro-ph.HE\]\]](#)
209. **“Linear Stability Analysis and the Speed of Gravitational Waves in Dynamical Chern-Simons Modified Gravity”**
 D. Garfinkle, F. Pretorius and N. Yunes
 Phys. Rev. D **82**, 041501 (2010)
[\[arXiv:1007.2429 \[gr-qc\]\]](#)

210. **“Binary Pulsar Constraints on the Parameterized post-Einsteinian Framework”**
N. Yunes and S. A. Hughes
 Phys. Rev. D **82**, 082002 (2010)
[\[arXiv:1007.1995 \[gr-qc\]\]](#)
211. **“Testing gravitational parity violation with coincident gravitational waves and short gamma-ray bursts”**
N. Yunes, R. O’Shaughnessy, B. J. Owen and S. Alexander
 Phys. Rev. D **82**, 064017 (2010)
[\[arXiv:1005.3310 \[gr-qc\]\]](#)
212. **“Semianalytical estimates of scattering thresholds and gravitational radiation in ultrarelativistic black hole encounters”**
 E. Berti, V. Cardoso, T. Hinderer, M. Lemos, F. Pretorius, U. Sperhake and N. Yunes
 Phys. Rev. D **81**, 104048 (2010)
[\[arXiv:1003.0812 \[gr-qc\]\]](#)
213. **“Constraining Parity Violation in Gravity with Measurements of Neutron-Star Moments of Inertia”**
N. Yunes, D. Psaltis, F. Ozel and A. Loeb
 Phys. Rev. D **81**, 064020 (2010)
[\[arXiv:0912.2736 \[gr-qc\]\]](#)
214. **“Constraining the evolutionary history of Newton’s constant with gravitational wave observations”**
N. Yunes, F. Pretorius and D. Spergel
 Phys. Rev. D **81**, 064018 (2010)
[\[arXiv:0912.2724 \[gr-qc\]\]](#)
215. **“Modeling Extreme Mass Ratio Inspirals within the Effective-One-Body Approach”**
N. Yunes, A. Buonanno, S. A. Hughes, M. Coleman Miller and Y. Pan
 Phys. Rev. Lett. **104**, 091102 (2010)
[\[arXiv:0909.4263 \[gr-qc\]\]](#)
216. **“Fundamental Theoretical Bias in Gravitational Wave Astrophysics and the Parameterized Post-Einsteinian Framework”**
N. Yunes and F. Pretorius
 Phys. Rev. D **80**, 122003 (2009)
[\[arXiv:0909.3328 \[gr-qc\]\]](#)
217. **“Cross section, final spin and zoom-whirl behavior in high-energy black hole collisions”**
 U. Sperhake, V. Cardoso, F. Pretorius, E. Berti, T. Hinderer and N. Yunes,
 Phys. Rev. Letters **13**, 131102 (2009)
[\[arXiv:0907.1252 \[gr-qc\]\]](#)
218. **“Conformally curved binary black hole initial data including tidal deformations and outgoing radiation”**
 N. K. Johnson-McDaniel, N. Yunes, W. Tichy and B. J. Owen
 Phys. Rev. D **80**, 124039 (2009)
[\[arXiv:0907.0891 \[gr-qc\]\]](#)

219. **“Seeking the Loop Quantum Gravity Barbero-Immirzi Parameter and Field in 4D, $\mathcal{N} = 1$ Supergravity”**
 S. J. J. Gates, S. V. Ketov and N. Yunes,
 Phys. Rev. D **80**, 065003 (2009)
[\[arXiv:0906.4978 \[hep-th\]\]](#)
220. **“Post-Circular Expansion of Eccentric Binary Inspirals: Fourier-Domain Waveforms in the Stationary Phase Approximation”**
N. Yunes, K. G. Arun, E. Berti and C. M. Will,
 Phys. Rev. D **80**, 084001 (2009)
[\[arXiv:0906.0313 \[gr-qc\]\]](#)
221. **“Integrated Sachs-Wolfe Effect for Gravitational Radiation”**
 P. Laguna, S. L. Larson, D. Spergel and N. Yunes,
 Astro. Phys. J. Lett. **715**, L12 (2010)
[\[arXiv:0905.1908 \[gr-qc\]\]](#)
222. **“Extreme- and Intermediate-Mass Ratio Inspirals in Dynamical Chern-Simons Modified Gravity”**
 C. F. Sopuerta and N. Yunes,
 Phys. Rev. D **80**, 064006 (2009)
[\[arXiv:0904.4501 \[gr-qc\]\]](#)
223. **“Dynamical Chern-Simons Modified Gravity: Spinning Black Holes in the Slow-Rotation Approximation”**
N. Yunes and F. Pretorius,
 Phys. Rev. D **79**, 084043 (2009)
[\[arXiv:0902.4669 \[gr-qc\]\]](#)
224. **“Constraining effective quantum gravity with LISA”**
N. Yunes and L. S. Finn,
 J. Phys. Conf. Ser. **154**, 012041 (2009)
[\[arXiv:0811.0181 \[gr-qc\]\]](#)
225. **“Double Binary Pulsar Test of Dynamical Chern-Simons Modified Gravity”**
N. Yunes and D. N. Spergel,
 Phys. Rev. D **80**, 042004 (2009)
[\[arXiv:0810.5541 \[gr-qc\]\]](#)
226. **“The Barbero-Immirzi Parameter as a Scalar Field: K-Inflation from Loop Quantum Gravity?”**
 V. Taveras and N. Yunes,
 Phys. Rev. D **78**, 064070 (2008)
[\[arXiv:0807.2652 \[gr-qc\]\]](#)
227. **“Chern-Simons Modified Gravity as a Torsion Theory and its Interaction with Fermions”**
 S. Alexander and N. Yunes,
 Phys. Rev. D **77**, 124040 (2008)
[\[arXiv:0804.1797 \[gr-qc\]\]](#)
228. **“Accuracy of the Post-Newtonian Approximation: Optimal Asymptotic Expansion for Quasi-Circular, Extreme-Mass Ratio Inspirals”**
N. Yunes and E. Berti,

- Phys. Rev. D **77**, 124006 (2008)
[\[arXiv:0803.1853 \[gr-qc\]\]](#)
229. **“A gravitational-wave probe of effective quantum gravity”**
 S. Alexander, L. S. Finn and N. Yunes,
 Phys. Rev. D **78**, 066005 (2008)
[\[arXiv:0712.2542 \[gr-qc\]\]](#)
230. **“Perturbations of Schwarzschild Black Holes in Chern-Simons Modified Gravity”**
N. Yunes and C. F. Sopuerta,
 Phys. Rev. D **77**, 064007 (2008)
[\[arXiv:0712.1028 \[gr-qc\]\]](#)
231. **“How do Black Holes Spin in Chern-Simons Modified Gravity?”**
 D. Grumiller and N. Yunes,
 Phys. Rev. D **77**, 044015 (2008)
[\[arXiv:0711.1868 \[gr-qc\]\]](#)
232. **“Gravitational Wave Recoil and the Retention of Intermediate Mass Black Holes”**
 K. Holley-Bockelmann, K. Gultekin, D. Shoemaker and N. Yunes,
 Astrophys. J. **686**, 829 (2008)
[\[arXiv:0707.1334 \[astro-ph\]\]](#)
233. **“Relativistic Effects in Extreme Mass Ratio Gravitational Wave Bursts”**
N. Yunes, C. F. Sopuerta, L. J. Rubbo and K. Holley-Bockelmann,
 Astrophys. J. **675**, 604 (2008)
[\[arXiv:0704.2612 \[astro-ph\]\]](#)
234. **“Parametrized Post-Newtonian Expansion of Chern-Simons Gravity”**
 S. Alexander and N. Yunes,
 Phys. Rev. D **75**, 124022 (2007)
[\[arXiv:0704.0299 \[hep-th\]\]](#)
235. **“A new PPN parameter to test Chern-Simons gravity”**
 S. Alexander and N. Yunes,
 Phys. Rev. Lett. **99**, 241101 (2007)
[\[arXiv:hep-th/0703265\]](#)
236. **“Frankenstein’s Glue: Transition functions for approximate solutions”**
N. Yunes,
 Class. Quant. Grav. **24**, 4313 (2007)
[\[arXiv:gr-qc/0611128\]](#)
237. **“Gravitational recoil velocities from eccentric binary black hole mergers”**
 C. F. Sopuerta, N. Yunes and P. Laguna,
 Astrophys. J. **656**, L9 (2007)
[\[arXiv:astro-ph/0611110\]](#)
238. **“Gravitational recoil from binary black hole mergers: The close-limit approximation”**
 C. F. Sopuerta, N. Yunes and P. Laguna,
 Phys. Rev. D **74**, 124010 (2006) [Erratum-ibid. D **75**, 069903 (2007 ERRAT,D78,049901.2008)]
[\[arXiv:astro-ph/0608600\]](#)

239. **“Improved initial data for black hole binaries by asymptotic matching of post-Newtonian and perturbed black hole solutions”**
 N. Yunes and W. Tichy,
 Phys. Rev. D **74**, 064013 (2006)
[\[arXiv:gr-qc/0601046\]](#)
240. **“Metric of a tidally perturbed spinning black hole”**
 N. Yunes and J. A. Gonzalez,
 Phys. Rev. D **73**, 024010 (2006)
[\[arXiv:gr-qc/0510076\]](#)
241. **“Binary black hole initial data from matched asymptotic expansions”**
 N. Yunes, W. Tichy, B. J. Owen and B. Bruegmann,
 Phys. Rev. D **74**, 104011 (2006)
[\[arXiv:gr-qc/0503011\]](#)
242. **“Testing alternative theories of gravity using LISA”**
 C. M. Will and N. Yunes,
 Class. Quant. Grav. **21**, 4367 (2004)
[\[arXiv:gr-qc/0403100\]](#)
243. **“Power laws, scale invariance, and generalized Frobenius series: Applications to Newtonian and TOV stars near criticality”**
 M. Visser and N. Yunes,
 Int. J. Mod. Phys. A **18**, 3433 (2003)
[\[arXiv:gr-qc/0211001\]](#)

List of Published, Refereed Review Articles:

1. **“New horizons for fundamental physics with LISA,”**
 K. G. Arun *et al.* [LISA],
 Living Rev. Rel. **25**, no.1, 4 (2022)
[\[https://link.springer.com/article/10.1007/s41114-022-00036-9\]](https://link.springer.com/article/10.1007/s41114-022-00036-9)
2. **“Gravitational-wave and X-ray probes of the neutron star equation of state,”**
 N. Yunes, M. C. Miller and K. Yagi,
 Nature Rev. Phys. **4**, no.4, 237-246 (2022)
[\[https://www.nature.com/articles/s42254-022-00420-y\]](https://www.nature.com/articles/s42254-022-00420-y)
3. **“New Horizons for Fundamental Physics with LISA,”**
 K. G. Arun *et al.* [LISA],
 Living Rev. Rel. **25**, no.1, 4 (2022)
[\[https://link.springer.com/article/10.1007/s41114-022-00036-9\]](https://link.springer.com/article/10.1007/s41114-022-00036-9)
4. **“Snowmass2021 Cosmic Frontier White Paper: Fundamental Physics and Beyond the Standard Model,”**
 E. Berti, V. Cardoso, Z. Haiman, D. E. Holz, E. Mottola, S. Mukherjee, B. Sathyaprakash, X. Siemens and N. Yunes,
[\[arXiv:2203.06240 \[hep-ph\]\]](#).
5. **“The Next Generation Global Gravitational Wave Observatory: The Science Book,”**
 V. Kalogera, B. S. Sathyaprakash, M. Bailes, M. A. Bizouard, A. Buonanno, A. Burrows, M. Colpi, M. Evans, S. Fairhurst and S. Hild, *et al.*, [\[arXiv:2111.06990.\]](#)

6. **“Approximate Universal Relations for Neutron Stars and Quark Stars”**
K. Yagi and N. Yunes.
Phys. Rept. **681**, 1 (2017)
[\[arXiv:1608.02582 \[astro-ph\]\]](#)
7. **“Gravitational-Wave Tests of General Relativity with Ground-Based Detectors and Pulsar Timing-Arrays”**
N. Yunes and X. Siemens.
Living Rev. Rel. **16**, 9 (2013)
[\[arXiv:1304.3473 \[gr-qc\]\]](#)
8. **“Gravitational Wave Modeling of Extreme Mass Ratio Inspirals and the Effective-One-Body Approach”**
N. Yunes,
Gravitational Wave Notes, *no.* 2, pages 3-48.
[\[arXiv:1003.5553 \[astro-ph\]\]](#)
9. **“Chern-Simons Modified General Relativity”**
S. Alexander and N. Yunes,
Phys. Rept. **480**, 1 (2009)
[\[arXiv:0907.2562 \[hep-th\]\]](#)

List of Published Conference Proceedings:

1. **“Searching for phase transitions in neutron stars with modified Gaussian processes,”**
D. Mroczek, M. C. Miller, J. Noronha-Hostler and N. Yunes,
[\[arXiv:2302.07978 \[astro-ph.HE\]\]](#).
2. **“Mirror Neutron Stars: How QCD can be used to study dark matter through gravitational waves,”**
M. Hippert, J. Setford, H. Tan, D. Curtin, J. Noronha-Hostler and N. Yunes,
Proceedings of Quark Matter '22
[\[arXiv:2207.13063 \[nucl-th\]\]](#) [].
3. **“Musings on Lorentz Violation Given the Recent Gravitational-Wave Observations of Coalescing Binary Black Holes”**
N. Yunes.
Proceedings for the CPT '16 Conference
[\[arXiv:1607.05787 \[gr-qc\]\]](#)
4. **“Gravitational Waves from Compact Binaries as Probes of the Universe”**
N. Yunes.
Proceedings for the 21st Japanese General Relativity and Gravitation Meeting
[\[arXiv:1112.3694 \[gr-qc\]\]](#)
5. **“Ultra-relativistic grazing collisions of black holes”**
U. Sperhake, V. Cardoso, F. Pretorius, E. Berti, T. Hinderer and N. Yunes
Proceedings for the 12th Marcel Grossman Meeting
[\[arXiv:1003.0882 \[gr-qc\]\]](#)
6. **“Testing Modified Gravity with Gravitational Wave Astronomy”**
C. F. Sopuerta and N. Yunes

Proceedings of Cosmology, the Quantum Vacuum, and Zeta Functions: A workshop with a celebration of Emilio Elizalde's sixtieth birthday, Bellaterra, Barcelona, Spain, 8-10 Mar 2010

[[arXiv:1010.0062](#) [gr-qc]]

7. **“Towards Tests of Alternative Theories of Gravity with LISA”**

C. F. Sopuerta and N. Yunes

Proceedings of the 12th Marcel Grossman Meeting, Paris, 12-18 Jun 2009

[[arXiv:1001.4899](#) [gr-qc]]

8. **“Ultra-relativistic grazing collisions of black holes”**

U. Sperhake, V. Cardoso, F. Pretorius, E. Berti, T. Hinderer and N. Yunes.

Proceedings of the 12th Marcel Grossman Meeting, Paris, 12-18 Jun 2009.

[www.worldscientific.com/doi/...]

9. **“Testing Effective Quantum Gravity with Gravitational Waves from Extreme-Mass-Ratio Inspirals”**

N. Yunes and C. F. Sopuerta

Proceedings of the 8th Edoardo Amaldi Conference on Gravitational Waves (Amaldi 8), Columbia University, New York, 21-26 Jun 2009

[[arXiv:0909.3636](#) [gr-qc]]

List of General Physics Articles:

1. **“Is Einstein Still Right?”**

N. Yunes.

Commissioned Article for the Revista Española de Física,

[[arXiv:1510.03845](#) [gr-qc]]