

CURRICULUM VITAE

Nicolas Yunes

Professor
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Statistics

Citizenship: Argentinian/Spanish. U.S. Permanent Resident.
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 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

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.
2010 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

2002-Present	Member of the American Physical Society (APS).
2004-Present	Member of the International Society for General Relativity and Gravitation.
2003-2008	Member of the LIGO Scientific Collaboration.

Committee Service

Professional Level

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.
2018-2020	Co-Chair of the Fundamental Science Working Group of the International LISA Consortium.
2018-2021	Co-Chair of NASA's GWSIG and member of the Executive Committee of NASA's PhysPAG.
2017-2020	Member of the Scientific Editorial Board of Classical and Quantum Gravity.
2011-2014	Elected Member at Large, Topical Group on Gravitation of the APS.
2011-2014	Convenor of the Fundamental Physics Group of NASA's Gravitational Wave Science Analysis Group.
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

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

Professional Workshops Organized

2018	Principal Local Organizer of an international workshop on "Fundamental Physics with LISA" at the Galileo Galilei Institute, Florence Italy.
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 model-independent and model-specific tests of General Relativity with gravitational wave observations, binary pulsar observations and Solar System experiments.
- Grav. Wave Modeling.* Construct accurate models for the gravitational waves emitted in the inspiral of black holes and neutron stars using post-Newtonian and black hole perturbation theory.
- Black Hole Theory.* Find analytical and numerical black hole solutions and study their stability in well-motivated and observationally-viable, modified gravity theories.
- Neutron Star Theory.* Study the approximately universal properties of the exterior gravitational field of neutron stars with different equations of states in General Relativity and in modified theories.

Funded Grant Activity

(Currently active grants are boldfaced)

Large Grants

- 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 MSU

Graduate Advanced Classical Mechanics, Fall 2012, Spring 2012, Fall 2013.
 Graduate Advanced General Relativity I, Fall 2017.
 Graduate Advanced General Relativity II, Spring 2013, Spring 2015.
 Graduate Advanced 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

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-Present	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).
2017	Co-organizer of the APS Conference for Undergraduate Women in Physics, MSU.
2016–Present	Research mentor of Latin-American graduate student (Alejandro Cárdenas-Avedaño).
2016–Present	Research mentor of Indian graduate students (Pratik Wagle, Toral Gupta).
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).
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

2016-Present	Samuel Liebersbach, MSU. USP award.
2017-Present	Jaxen Godfrey, MSU. USP award, MSGC Apprenticeship award.
2017-Present	Reagan Cox, MSU.
2018-Present	Quentin Lucas, MSU.

Former Undergraduate Students

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

2017-Present	Pratik Wagle, MSU.
2017-Present	Hung Tan, MSU.
2017-Present	Scott Perkins, MSU.
2016-Present	Alejandro Cárdenas-Avendaño, MSU.
2016-Present	Blake Moore, MSU.
2014-Present	Andrew Sullivan, MSU.
2013-Present	Alex Saffer, MSU.

Former Graduate Students

2014-2018	David Anderson, MSU. Became employed at Raytheon Industries.
2012-2018	Nicholas Loutrel, MSU. Became postdoc at Princeton U.
2012-2017	Dimitry Ayzenberg, MSU. Became postdoc in Fudan, China.
2011-2016	Katerina Chatziioannou, MSU. Onassis Fellow. Became CITA Fellow
2011-2014	Laura Sampson, MSU, co-advised with Prof. Cornish. Became postdoc at CIERA.
2010-2011	Leo C. Stein, MIT, co-advised with Prof. Hughes. Became Burke fellow at Caltech.
2010-2011	Sarah Vigeland, MIT, co-advised with Prof. Hughes. Became postdoc at UWM.

Prospective Graduate Students

2018-Present	Caroline Owen, MSU.
2018-Present	Ryan Hatch, MSU.
2018-Present	Alex Deich, MSU.
2018-Present	Alex Chinchilli, MSU.
2018-Present	Rohit Chandramouli, MSU.
2018-Present	Toral Gupta, MSU.

Current Postdoctoral Associates

2017-2020	Hector Okada-Da Silva, MSU
2014-2016	Remya Nair, MSU.

Former Postdoctoral Associates

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, co-advised with Prof. Cornish. Became postdoc at IAS d'Paris.

Outreach Events and Informal Education

- 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-Present **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-Present **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.

List of Selected Presentations

Plenary Talks at Conferences and Workshops

- Greek Relativity Meeting, International Conference, Rhodes Greece, 2018.
- 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

- 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

- 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.

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.

Invited Lecturer at Summer Schools

- Summer School at Testing Gravity '19, Invited Lecturer, Vancouver Canada, 2019.
- Summer School on Gravitational Waves, Invited Lecturer, Kyoto Japan, 2015.

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.

Presentations by Students and Postdoctoral Researchers

• *Invited Presentations*

- Hector Okada-Da Silva, APS April meeting (2019).
- Kent Yagi, workshops in Germany (2015), Indiana (2014), Seattle (2014) and Japan (2012), and conferences in Japan (2014) and in India (2012).
- Laura Sampson, seminars at UWM, Northwestern U. , RIT, U. Mass. Amherst and MIT (2014), colloquium at U. T. Brownsville (2014)

• *Contributed Presentations*

- Kent Yagi, APS April Meeting (2013, 2014, 2015), workshops in Mississippi (2014) and in Japan (2012, 2013), and conferences in Poland (2013) and Sweden (2012).
- Barun Majumder, April APS (2016).
- Laura Sampson, April APS (2015).
- Katerina Chatziioannou, APS April Meeting (2013, 2014, 2015, 2016).
- Nicholas Loutrel, APS April Meeting (2014, 2015, 2016).
- David Anderson, APS April Meeting (2017, 2018).
- Andrew Sullivan, APS April Meeting (2018).
- Alex Saffer, APS April Meeting (2018).
- Dimitry Ayzenberg, APS April Meeting (2014, 2015, 2016).
- Katie Chamberlain, APS April Meeting (2017, 2018).
- Harrison Gott, APS April Meeting (2018).
- Samuel Liebersbach, APS April Meeting (2018).
- Joe Bretz, APS April Meeting (2016).
- Devin Hansen, APS April Meeting (2014, 2015).

List of Publications¹

(postdoctoral and student mentees during publication appear in italics)

1. **“Can we probe Planckian corrections at the horizon scale with gravitational waves?”**
A. Addazi, A. Marciano and N. Yunes.
Submitted to Classical and Quantum Gravity [<http://inspirehep.net/record/1700199>]
2. **“The Eccentric Behavior of Inspiring Compact Binaries”**
N. Loutrel, *S. Liebersbach*, N. Yunes and N. Cornish.
Submitted to Classical and Quantum Gravity [<http://inspirehep.net/record/1697330>]
3. **“An Entropy-Area Law for Neutron Stars Near the Black Hole Threshold”**
S. H. Alexander, K. Yagi and N. Yunes.
Accepted to Classical and Quantum Gravity [<http://inspirehep.net/record/1696718>]
4. **“Frequency-domain waveform approximants capturing Doppler shifts”**
K. Chamberlain, C. J. Moore, D. Gerosa and N. Yunes.
Submitted to Classical and Quantum Gravity [<http://inspirehep.net/record/1693817>]
5. **“Observing the Shadows of Stellar-Mass Black Holes with Binary Companions”**
H. Gott, D. Ayzenberg, N. Yunes and A. Lohfink.
Accepted to Classical and Quantum Gravity [<http://inspirehep.net/record/1688669>]
6. **“Hidden-Sector Modifications to Gravitational Waves From Binary Inspirals”**
S. Alexander, E. McDonough, R. Sims and N. Yunes.
Accepted to Classical and Quantum Gravity [<http://inspirehep.net/record/1687843>]
7. **“Neutron star pulse profiles in scalar-tensor theories of gravity”**
H. O. Silva and N. Yunes.
Submitted to the Physical Review D [<http://inspirehep.net/record/1687157>]
8. **“Black Hole Shadow as a Test of General Relativity: Quadratic Gravity”**
D. Ayzenberg and N. Yunes.
Accepted to Classical and Quantum Gravity [<http://inspirehep.net/record/1683523>]
9. **“Angular Momentum Loss for a Binary System in Einstein-Æther Theory”**
A. Saffer and N. Yunes.
Accepted to Classical and Quantum Gravity [<http://inspirehep.net/record/1683449>]
10. **“A Fourier Domain Waveform for Non-Spinning Binaries with Arbitrary Eccentricity”**
B. Moore, T. Robson, *N. Loutrel* and N. Yunes.
Accepted for publication in Classical and Quantum Gravity. Selected for *CQG Highlights* [<http://inspirehep.net/record/1683137>]
11. **“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>]

¹ *Statistics*. Total of 155 papers: 1 famous paper (250-499 citations), 9 very well-known papers (100-249 citations), and 29 well-known papers (50-99 citations), 4 review papers, 9 conference proceedings and 1 general physics article. Total of 5,567 citations with an h-index of 45 (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>.

12. **“Scalar Tops and Perturbed Quadrupoles: Probing Fundamental Physics with Spin-Precessing Binaries”**
N. Loutrel, T. Tanaka and N. Yunes.
 Submitted to Classical and Quantum Gravity Letters. [<http://inspirehep.net/record/1678648>]
13. **“The exact dynamical Chern-Simons metric for a spinning black hole possesses a fourth constant of motion: A dynamical-systems-based conjecture”**
A. Cárdenas-Avendaño, 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>]
14. **“Nature Abhors a Circle”**
N. Loutrel, *S. Liebersbach*, N. Yunes and N. Cornish.
 Submitted to Classical and Quantum Gravity Letters [<http://inspirehep.net/record/1650905>]
15. **“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>]
16. **“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>]
17. **“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>]
18. **“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>]
19. **“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>]
20. **“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>]
21. **“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>]
22. **“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>]
23. **“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>]

24. **“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]]
25. **“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]]
26. **“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]]
27. **“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]]
28. **“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]]
29. **“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]]
30. **“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]]
31. **“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]]
32. **“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]]
33. **“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]]
34. **“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]]
35. **“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]]
36. **“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]

37. **“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>]
38. **“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](https://arxiv.org/abs/1603.08955) [gr-qc]]
39. **“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](https://arxiv.org/abs/1603.04075) [gr-qc]]
40. **“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](https://arxiv.org/abs/1601.06088) [astro-ph.HE]]
41. **“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](https://arxiv.org/abs/1601.02171) [gr-qc]]
42. **“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](https://arxiv.org/abs/1512.05453) [gr-qc]]
43. **“Binary Love Relations”**
K. Yagi and N. Yunes.
Class. Quant. Grav. **33**, no. 13, 13LT01 (2016). Selected for *CQG Highlights* [[arXiv:1512.02639](https://arxiv.org/abs/1512.02639) [gr-qc]]
44. **“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](https://arxiv.org/abs/1510.02152) [gr-qc]]
45. **“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](https://arxiv.org/abs/1508.02062) [gr-qc]]
46. **“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](https://arxiv.org/abs/1507.02278) [gr-qc]]
47. **“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](https://arxiv.org/abs/1504.02506) [gr-qc]]
48. **“I-Love-Q Anisotropically”**
K. Yagi and N. Yunes,
Phys. Rev. D **91**, no. 12, 123008 (2015) [[arXiv:1503.02726](https://arxiv.org/abs/1503.02726) [gr-qc]]
49. **“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](https://arxiv.org/abs/1502.04131) [gr-qc]]

50. **“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 \[gr-qc\]](#)]
51. **“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 \[gr-qc\]](#)]
52. **“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 \[gr-qc\]](#)]
53. **“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 \[gr-qc\]](#)]
54. **“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 \[gr-qc\]](#)]
55. **“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 \[gr-qc\]](#)]
56. **“Gravitational-Wave Mediated Preheating”**
S. Alexander, S. Cormack, A. Marciano and N. Yunes.
 Phys. Lett. B **743**, 82 (2015) [[arXiv:1405.4288 \[gr-qc\]](#)]
57. **“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 \[gr-qc\]](#)]
58. **“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 \[gr-qc\]](#)]
59. **“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 \[gr-qc\]](#)]
60. **“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 \[gr-qc\]](#)]
61. **“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 \[gr-qc\]](#)]
62. **“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 \[gr-qc\]](#)]

63. **“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]]
64. **“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]]
65. **“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]]
66. **“Love can be Tough to Measure”**
K. Yagi and N. Yunes.
 Phys. Rev. D **89**, 021303 (2014) [[arXiv:1310.8358](#) [gr-qc]]
67. **“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]]
68. **“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]]
69. **“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]]
70. **“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]]
71. **“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]]
72. **“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]]
73. **“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]]
74. **“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]]

75. **“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 \[gr-qc\]](#)]
76. **“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 \[gr-qc\]](#)]
77. **“Stealth Bias in Gravitational-Wave Parameter Estimation”**
M. Vallisneri and *N. Yunes*.
 Phys. Rev. D **87**, 102002 (2013) [[arXiv:1301.2627 \[gr-qc\]](#)]
78. **“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 \[hep-th\]](#)]
79. **“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 \[gr-qc\]](#)]
80. **“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 \[gr-qc\]](#)]
81. **“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 \[gr-qc\]](#)]
82. **“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 \[gr-qc\]](#)]
83. **“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 \[astro-ph.SR\]](#)]
84. **“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 \[gr-qc\]](#)]
85. **“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 \[astro-ph.HE\]](#)]
86. **“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 \[gr-qc\]](#)]

87. **“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 \[hep-th\]](#)]
88. **“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 \[gr-qc\]](#)]
89. **“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 \[gr-qc\]](#)]
90. **“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 \[gr-qc\]](#)]
91. **“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 \[gr-qc\]](#)]
92. **“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 \[gr-qc\]](#)]
93. **“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 \[gr-qc\]](#)]
94. **“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 \[gr-qc\]](#)]
95. **“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 \[gr-qc\]](#)]
96. **“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 \[astro-ph.GA\]](#)]
97. **“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 \[gr-qc\]](#)]
98. **“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 \[astro-ph.CO\]](#)]

99. **“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]]
100. **“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]]
101. **“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]]
102. **“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]]
103. **“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]]
104. **“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. Thrope
Phys. Rev. D **83**, 044044 (2011) [[arXiv:1009.6013](#) [gr-qc]]
105. **“A Tale of Two Jets”**
N. Yunes
Science, vol. 329, issue 5994, pp. 908-909 (2010) [[arXiv:1009.0018](#) [astro-ph.HE]]
106. **“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]]
107. **“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]]
108. **“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]]
109. **“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]]
110. **“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]]

111. **“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]]
112. **“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]]
113. **“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]]
114. **“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]]
115. **“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]]
116. **“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]]
117. **“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]]
118. **“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]]
119. **“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]]
120. **“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]]
121. **“Constraining effective quantum gravity with LISA”**
N. Yunes and L. S. Finn,
 J. Phys. Conf. Ser. **154**, 012041 (2009) [[arXiv:0811.0181](#) [gr-qc]]

122. **“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]]
123. **“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]]
124. **“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]]
125. **“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]]
126. **“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]]
127. **“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]]
128. **“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]]
129. **“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]]
130. **“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]]
131. **“Parametrized Post-Newtonian Expansion of Chern-Simons Gravity”**
 S. Alexander and N. Yunes,
 Phys. Rev. D **75**, 124022 (2007) [[arXiv:0704.0299](#) [hep-th]]
132. **“A new PPN parameter to test Chern-Simons gravity”**
 S. Alexander and N. Yunes,
 Phys. Rev. Lett. **99**, 241101 (2007) [[arXiv:hep-th/0703265](#)]
133. **“Frankenstein’s Glue: Transition functions for approximate solutions”**
N. Yunes,
 Class. Quant. Grav. **24**, 4313 (2007) [[arXiv:gr-qc/0611128](#)]
134. **“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](#)]

135. **“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](#)]
136. **“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](#)]
137. **“Metric of a tidally perturbed spinning black hole”**
N. Yunes and J. A. Gonzalez,
Phys. Rev. D **73**, 024010 (2006) [[arXiv:gr-qc/0510076](#)]
138. **“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](#)]
139. **“Testing alternative theories of gravity using LISA”**
C. M. Will and N. Yunes,
Class. Quant. Grav. **21**, 4367 (2004) [[arXiv:gr-qc/0403100](#)]
140. **“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. **“Approximate Universal Relations for Neutron Stars and Quark Stars”**
K. Yagi and N. Yunes.
Phys. Rept. **681**, 1 (2017) [[arXiv:1608.02582 \[astro-ph\]](#)]
2. **“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 \[gr-qc\]](#)]
3. **“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 \[astro-ph\]](#)]
4. **“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. **“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 \[gr-qc\]](#)]

2. **“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]]
3. **“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]]
4. **“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]]
5. **“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]]
6. **“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/...](#)]
7. **“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 Espanola de Fisica,
[arXiv:1510.03845](#) [gr-qc]