

Jocelyn S. Read — Curriculum Vitae

CONTACT INFORMATION	Department of Physics California State University Fullerton 800 N. State College Blvd. Fullerton CA 92831	Phone: 657-278-8753 Fax: 657-278-2555 E-mail: jread@fullerton.edu
EDUCATION	Doctor of Philosophy in Physics <i>Neutron stars in compact binary systems: from the equation of state to gravitational radiation.</i> University of Wisconsin–Milwaukee, Milwaukee, WI, USA Advisors: John Friedman & Jolien Creighton	August 2008
	Bachelor of Science Combined Honours in Physics and Mathematics University of British Columbia, Vancouver, BC, Canada	May 2002
ACADEMIC POSITIONS	California State University Fullerton, USA Associate Professor.	2018-
	Carnegie Institution for Science in Pasadena, USA Visiting Scientist	2020
	California Institute of Technology, USA Visiting Scientist, LSC Extreme Matter Support.	2019
	California State University Fullerton, USA Assistant Professor.	2012-2018
	California Institute of Technology, USA Visiting Associate, Theoretical Astrophysics Including Relativity (TAPIR) group.	2012-2013
	University of Mississippi, USA Postdoctoral Research Associate; Gravitation, Astrophysics, and Theoretical Physics.	2010-2012
	MPIGP (Albert Einstein Institute), Potsdam, Germany Postdoctoral Fellow. Astrophysical Relativity group.	2008-2010
	University of Wisconsin–Milwaukee, USA Doctoral research. Advisors: J. Friedman and J. Creighton.	2003-2008
	University of Wisconsin–Milwaukee, USA Graduate research assistant, Center for Gravitation and Cosmology, LSC Group.	2003
RESEARCH INTERESTS	Gravitational-wave astronomy, data science, neutron-star equations of state, compact object populations, numerical relativity, perturbative and post-Newtonian methods in gravity, high-energy astrophysics.	

LEADERSHIP	<p>LIGO Scientific Collaboration Program Committee, 2021-</p> <p>Scientific Advisory Committee (SAC) of the ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav) 2021-</p> <p>Secretary/Treasurer, Division of Gravity, American Physical Society. 2020-2023</p> <p>Senior Project Lead, Extreme Matter. Compact Binary Coalescence Working Group. LIGO Scientific Collaboration. 2016-2022</p> <p>Editor-in-chief, LIGO Magazine. http://www.ligo.org/magazine/ 2016-2018</p> <p>Co-chair, Binary Neutron Star Sources. Compact Binary Coalescence Working Group. LIGO Scientific Collaboration. 2014-2016</p> <p>Co-chair, LIGO Scientific Collaboration Academic Advisory Council. 2014-2016</p>
PEER-REVIEWED PUBLICATIONS	<p>A full list can be found at: http://scholar.google.com/citations?user=0z9YvUcAAAAJ</p> <p><i>since September 2018</i></p> <ol style="list-style-type: none"> 13. "Science-driven Tunable Design of Cosmic Explorer Detectors." Varun Srivastava, Derek Davis, Kevin Kuns, Philippe Landry, Stefan Ballmer, Matthew Evans, Evan D. Hall, Jocelyn Read, and B. S. Sathyaprakash. <i>Astrophys. J. Lett.</i> 931 22 (2022). 12. "The Mass Distribution of Neutron Stars in Gravitational-wave Binaries." Philippe Landry, Jocelyn S. Read. <i>Astrophys. J. Lett.</i> 921, L25 (2021). 11. "Observation of gravitational waves from two neutron star-black hole coalescences." The LIGO Scientific Collaboration, the Virgo Collaboration, the KAGRA Collaboration. <i>ApJL</i>, 915, L5 (2021). <i>Read and CSUF Postdoc Phillipe Landry contributed to the classification of the lower-mass components. Read, Landry, and CSUF Masters student Derek White contributed to calculating the mass remaining outside the merger remnant black hole.</i> 10. "Parametrized equation of state for neutron star matter with continuous sound speed." Michael F O'Boyle, Charalampos Markakis, Nikolaos Stergioulas, Jocelyn S Read. <i>Phys. Rev. D.</i> 102 8 083027 (2020). 9. "GW190814: gravitational waves from the coalescence of a 23 solar mass black hole with a 2.6 solar mass compact object." The LIGO Scientific Collaboration and The Virgo Collaboration. <i>Astrophys. J. Lett.</i> 896 L44 (2020) <i>CSUF postdoc Phil Landry was on the editorial team for this paper. Read contributed to work on the classification of the 2.6 solar mass "mystery" component.</i> 8. "GW190425: Observation of a Compact Binary Coalescence with Total Mass $\sim 3.4 M_{\odot}$," The LIGO Scientific Collaboration and The Virgo Collaboration. <i>The Astrophysical Journal Letters</i> 892 (1), L3 (2020). <i>Read contributed significantly to the interpretation of matter effects, working with past student Rossella Gamba of the editorial team. Read also worked with Gamba and CSUF postdoc Phillipe Landry on an analysis exploring the central density reached in these unusually massive stars.</i> 7. "Model comparison from LIGO–Virgo data on GW170817's binary components and consequences for the merger remnant," The LIGO Scientific Collaboration and The

- Virgo Collaboration. *Classical and Quantum Gravity* 37 (4), 045006 (2020). *Read contributed significantly to this work as Extreme Matter lead, and in particular contributed to code and equation of state infrastructure and review.*
6. “The impact of the crust equation of state on the analysis of GW170817.” Rossella Gamba*, **Jocelyn S. Read**, Leslie E. Wade. <https://arxiv.org/abs/1905.02842>, *Classical and Quantum Gravity* 37 (2), 025008 (2019).
 5. “Astrophysical science metrics for next-generation gravitational-wave detectors.” Rana X Adhikari, P Ajith, Yanbei Chen, James A Clark, Vladimir Dergachev, Nicolas V Fotopoulos, Sarah E. Gossan, Ilya Mandel, Maria Okounkova, Vivien Raymond, **Jocelyn S Read**. <https://arxiv.org/abs/1905.02842>, *Class. Quantum Grav.* 36 245010 (2019).
 4. “Properties of the binary neutron star merger GW170817.” The LIGO Scientific Collaboration and The Virgo Collaboration. *Phys. Rev. X* 9, 011001 (2019) *Read contributed to this work as Extreme Matter lead, and in particular set up the parameters of the injection and recovery study in Appendix B.*
 3. “GW170817: Measurements of neutron star radii and equation of state.” The LIGO Scientific Collaboration and The Virgo Collaboration. *Phys. Rev. Lett.* 121, 161101 (2018). *Read contributed significantly to this work as Extreme Matter lead, and in particular led the review team and reviewed code related to equation of state constraint.*
- before September 2018*
16. “Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817.” The LIGO Scientific Collaboration and The Virgo Collaboration. *The Astrophysical Journal Letters*, Volume 851, Number 1, December 2017. *Read’s undergraduate research students Eric Flynn and Derek White were added as co-authors to this work based on their contributions to importing numerical simulation waveforms.*
 15. “GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral.” The LIGO Scientific Collaboration and The Virgo Collaboration. *Phys. Rev. Lett.* 119, 161101, October 2017. *J. Read was the neutron-star astrophysics expert on the internal paper-writing team for this discovery. Read was heavily involved in rapid analyses to determine source properties for this event. As senior lead on the Extreme Matter team, Read coordinated tidal analyses and reviews. Two of her undergraduate research students, Isabella Molina and Erick Leon, contributed to this work and were added as co-authors on this paper as recognition of their contributions. Torrey Cullen is also a co-author on this paper based on his work as an undergraduate/Masters student in Read’s group.*
 14. “Matter Effects on LIGO/Virgo Searches for Gravitational Waves from Merging Neutron Stars.” *Class. Quantum Grav.* 34 245003 (2017) T. Cullen*, **J. Read**, I. Harry, E. Flynn* *Cullen lead the writing and research of this paper as an undergraduate and Masters student in Read’s group.*
 13. “Upper limits on the rates of binary neutron star and neutron-star-black-hole mergers from Advanced LIGO’s first observing run.” The LIGO Scientific Collaboration and The Virgo Collaboration. *The Astrophysical Journal Letters*, Volume 832, Issue 2, L21. (2016) *J. Read and Ian Harry were the two internal LIGO-Virgo Collaboration editors leading this paper. Read co-chaired the binary neutron star source group during LIGO’s first observing run and contributed to configuring searches that found the first signals.*
 12. Read is also a co-author on additional papers due to overall contributions to the LIGO Scientific Collaboration since 2015, listed at <https://www.lsc-group.phys.uwm.edu/ppcomm/Papers.html>. In particular, she contributed to:

- “GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs.” Accepted to PRX.
 - “Constraining the p-mode–g-mode tidal instability with GW170817.” (by LSC, Virgo and N. Weinberg) Phys. Rev. Lett. 122, 061104 (2019).
 - “Multi-Messenger Observations of a Binary Neutron Star Merger.” Astrophys. J. Lett. 848, L12 (2017)
 - “Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A.” (by LSC, Virgo, Fermi-GBM and INTEGRAL). Astrophys. J. Lett. 848, L13 (2017)
 - “A gravitational-wave standard siren measurement of the Hubble constant (by LSC, Virgo, 1M2H, DECAM GW-EM and DES, DLT40, LCO, VINROUGE and MASTER),
 - “Observation of Gravitational Waves from a Binary Black Hole Merger.” Phys. Rev. Lett. 116, 061102 (2016)
 - “Properties of the binary black hole merger GW150914” Phys. Rev. Lett. 116, 241102 (2016)
11. “Matter effects on binary neutron star waveforms.” **Jocelyn S. Read**, Luca Baiotti, Jolien D. E. Creighton, John L. Friedman, Bruno Giacomazzo, Koutarou Kyutoku, Charalampos Markakis, Luciano Rezzolla, Masaru Shibata, Keisuke Taniguchi. Phys. Rev. D 88 (2013) 044042.
 10. “The Transient Gravitational-Wave Sky.” Nils Andersson *et al.* Class. Quant. Grav. 30 (2013) 193002.
 9. “The Global Network of Optical Magnetometers for Exotic physics (GNOME): A novel scheme to search for physics beyond the Standard Model.” Szymon Pustelny, Derek F. Jackson Kimball, Chris Pankow, Micah P. Ledbetter, Przemyslaw Włodarczyk, Piotr Wcisło, Maxim Pospelov, Joshua R. Smith, **Jocelyn Read**, Wojciech Gawlik, Dmitry Budker. Annalen der Physik 525 (2013) 659-670.
 8. “Measuring a cosmological distance-redshift relationship using only gravitational wave observations of binary neutron star coalescences.” Chris Messenger and **Jocelyn Read**. Phys. Rev. Lett. 108 (2012), 91101.
 7. “Resonant Shattering of Neutron Star Crusts.” David Tsang, **Jocelyn S. Read**, Tanja Hinderer, Anthony L. Piro, Ruxandra Bondarescu. Phys. Rev. Lett. 108 (2012) 011102. *Editor’s Suggestion*.
 6. “Scientific Objectives of Einstein Telescope.” B Sathyaprakash *et al.* Class. Quant. Gravity 29 (2012) 124013.
 5. “Compact stars in alternative theories of gravity: Einstein-Dilaton-Gauss-Bonnet gravity.” Paolo Pani, Emanuele Berti, Vitor Cardoso, **Jocelyn Read**. Phys. Rev. D. 84 (2011) 104035.
 4. “Will black hole-neutron star binary inspirals tell us about the neutron star equation of state?” Francesco Pannarale, Luciano Rezzolla, Frank Ohme, **Jocelyn S. Read**. Phys. Rev. D 24 (2011) 104017.
 3. “The vacuum revealed: the final state of vacuum instabilities in compact stars.” Paolo Pani, Vitor Cardoso, Emanuele Berti, **Jocelyn Read**, Marcelo Salgado. Phys. Rev. D 83 (2011) 081501.

2. “Gravitational waves from neutron stars: Promises and challenges.” N. Andersson, V. Ferrari, D.I. Jones, K.D. Kokkotas, B. Krishnan, **J. Read**, L. Rezzolla, B. Zink. *Gen. Rel. Grav.* 43 (2011) 409-436.
Charalampos Markakis, **Jocelyn S. Read**, Masaru Shibata, Koji Uryu, Jolien D. E. Creighton, John L. Friedman, Benjamin D. Lackey. *J. Phys. Conf. Ser.* 189 (2009) 012024.
1. “Constraints on a phenomenologically parameterized neutron-star equation of state.” **Jocelyn S. Read**, Benjamin D. Lackey, John L. Friedman, Benjamin J. Owen. *Phys. Rev. D* 79 (2009) 124032.
0. “Models of helically symmetric binary systems.” Shin’ichirou Yoshida, Benjamin C. Bromley, **Jocelyn S. Read**, Koji Uryu, John L. Friedman. *Class. Quantum Grav.* 23 (2006) S599-S613.
0. “Gravitational wave bursts from cosmic (super)strings: Quantitative analysis and constraints.” Xavier Siemens, Jolien Creighton, Irit Maor, Saikat Ray Majumder, Kipp Cannon, **Jocelyn Read**. *Phys. Rev. D* 73 (2006) 105001.

SUBMITTED AND IN
PEER REVIEW

1. GWTC-3: Compact Binary Coalescences Observed by LIGO and Virgo During the Second Part of the Third Observing Run <https://dcc.ligo.org/LIGO-P2000318/public> Megan Loh is a co-author from work with Read as a CSUF intern on parameter estimation during this run. As of September 2022, this preprint had 513 citations listed on INSPIRES.
2. The population of merging compact binaries inferred using gravitational waves through GWTC-3 <https://dcc.ligo.org/LIGO-P2100239/public>. Read contributed to the calculation of the neutron-star population inferred from GWTC-3. As of September 2022, this preprint had 214 citations listed on INSPIRES.

WHITE PAPERS

“Compact binaries as probes of dense matter and QCD phase transitions” M. Coughlin , T. Dietrich , R. Essick , P. Landry , **J. Read** , B.S. Sathyaprakash, N. Stergioulas, I. Tews . Particle Physics Community Planning Exercise (Snowmass2021) Letter of Interest, SNOWMASS21-CF7_CF3-EF7_EF0_Jocelyn_Read-195.

“ Cosmic Explorer: The Next-Generation U.S. Gravitational-Wave Detector” Dave Reitze, Albert Lazzarini, Joseph Giaime, Mike Landry, Peter Fritschel, Rainer Weiss, Matthew Evans, Stefan Ballmer, Geoffrey Lovelace, Yanbei Chen, B.S. Sathyaprakash, **Jocelyn Read**, Joshua Smith, Duncan Brown, Salvatore Vitale, Rana Adhikari, Bram Slagmolen. Particle Physics Community Planning Exercise (Snowmass2021) Letter of Interest, SNOWMASS21-CF7_CF6-AF6_AF0-IF1_IF0-010.

“Cosmic Explorer: The U.S. Contribution to Gravitational-Wave Astronomy beyond LIGO” David Reitze, Rana X Adhikari, Stefan Ballmer, Barry Barish, Lisa Barsotti, GariLynn Billingsley, Duncan A. Brown, Yanbei Chen, Dennis Coyne, Robert Eisenstein, Matthew Evans, Peter Fritschel, Evan D. Hall, Albert Lazzarini, Geoffrey Lovelace, **Jocelyn Read**, B. S. Sathyaprakash, David Shoemaker, Joshua Smith, Calum Torrie, Salvatore Vitale, Rainer Weiss, Christopher Wipf, Michael Zucker. APC White Paper submitted to the Decadal Survey on Astronomy and Astrophysics (Astro2020).

ASTRONOMICAL
NOTICES

“LIGO/Virgo S191110af: Potential pulsar counterparts,” David Kaplan, John Friedman, Jocelyn Read, Growth Collaboration. GRB Coordinates Network, Circular Service, No. 26243.

EXTRAMURAL
GRANTS

(Co-I) National Science Foundation, AST - Division of Astronomical Sciences, “The CSUF-led partnership for inclusion of underrepresented groups in gravitational-wave astronomy.” PI Geoffrey Lovelace, Co-Is Joshua Smith, Stefan Ballmer, Jocelyn Read, and Georgia Mansell. \$833,701.00, funded 2022-2027.

(PI) National Science Foundation, AST - Division of Astronomical Sciences, “Supplement: The CSUF-Syracuse partnership for inclusion of underrepresented groups in gravitational-wave astronomy,” \$19,222, funded 2022-2023.

(PI) National Science Foundation, PHY - LIGO Research Support, “RUI: Dense Matter and Gravitational Waves: The Coalescence of Neutron Star Binaries,” Co-I Phillippe Landry. \$204,874, funded 2021-2025.

(PI) National Science Foundation, PHY - LIGO Research Support, “RUI: Dense Matter and Gravitational Waves: The Coalescence of Neutron Star Binaries,” \$204,874, funded 2018-2022.

(Co-I) National Science Foundation, PHY - LIGP Research Support, “Collaborative Research: The Next Generation of Gravitational Wave Detectors.” PI Geoffrey Lovelace, Co-Is Jocelyn Read, Joshua Smith. Collaborative PI Matt Evans, MIT. \$211,283 (Fullerton), funded 2018-2021.

(PI) National Science Foundation, AST - Partnerships in Astronomy & Astrophysics Research and Education (PAARE), “The CSUF-Syracuse partnership for inclusion of underrepresented groups in gravitational-wave astronomy” \$937,368, funded 2016-2021.

(PI) National Science Foundation, PHY - LIGO Research Support, “RUI: Dense matter and gravitational waves: the coalescence of neutron star binaries,” \$126,000, funded 2013-2017.

(Co-PI) Research Corporation for Science Advancement, Multi Investigator Cottrell College Science Award, “Developing a numerical injection analysis pipeline for gravitational waves from merging black holes and neutron stars,” Co-PIs Jocelyn Read and Geoffrey Lovelace, \$75,000, funded 2014-2015.

(Co-I) National Science Foundation (NSF) PHY-1429873, “MRI: Acquisition of a high-performance computer cluster for gravitational-wave astronomy with Advanced LIGO,” PI Geoffrey Lovelace, Co-Is Jocelyn Read, Joshua Smith \$119,791, awarded 2014.

INTRAMURAL
GRANTS

Best Practices in Mentoring Undergraduates in Research Grant, “Visualizing Gravitational Waves,” \$750, funded 2013-2014.

CSUF Intramural Research Award, “High-energy flares from merging neutron stars,” \$1993, funded 2013-2014.

AWARDS AND HONORS

- Elected Fellow of the American Physical Society 2019.
Citation: For contributions to the understanding of extreme matter within neutron stars, including its effects on gravitational-wave observations, and for the inclusive recruiting and mentoring of next generation gravitational-wave scientists. Nominated by: DGRAV
- Outstanding Untenured Faculty Member,
CSUF College of Natural Sciences and Mathematics 2018
- Orange County “Game Changer,” Orange County Business Council 2018
- Peter Sim Lecturer, The Royal Astronomical Society of Canada, Calgary Centre 2017
- Woman of the Year in Science and Technology,
California State 29th Senatorial District 2017
- Special Breakthrough Prize in Fundamental Physics
shared among 1,012 contributors to the LIGO experiment 2016
- Honourable Mention, GWIC Thesis Prize 2008
- Midwest Relativity Meeting Blue Apple Award 2007

INVITED TALKS SEMINARS, AND PANELS

Since September 2017

45. “Neutron stars in gravitational-wave astronomy.” QNP2022 - The 9th International Conference on Quarks and Nuclear Physics. Online, September 2022.
44. “From Quantum Chromodynamics to Gravitational Waves”. Presented on behalf of Read by Evangeline Downie, introduction to discussion section. Frontiers in Nuclear and Hadronic Physics, Photonuclear Reactions GRC 2022. August 2022.
43. “Observing neutron stars with gravitational-wave astronomy.” AstroPhysics Seminar, McGill Space Institute, McGill University, Montreal, Canada, June 2022.
42. “Neutron star equations of state and numerical simulation.” Discussions of New Developments in Equations of State, with Jim Lattimer (Stony Brook University). Theoretical and Computational Astrophysics Network on Binary Neutron Stars and Black-Hole/Neutron-Stars Workshop 2022. June 2022.
41. “Neutron-star observations with gravitational waves.” Workshop: Neutron stars as multi-messenger laboratories for dense matter, European Centre for Theoretical Studies in Nuclear Physics and Related Areas. Hybrid, June 2022.
40. “Continuous and transient gravitational waves from neutron stars in the LIGO-Virgo Collaboration observing run O3.” Special Session of the High Energy Astrophysics Division: Neutron Stars from the Inside Out. 240th Meeting of the American Astronomical Society, Pasadena, CA, June 2022.
39. “Neutron stars observed with gravitational-wave astronomy.” Centre for Research in Astrophysics of Quebec (CRAQ) annual scientific meeting, virtual, Orford, Quebec. May 2022.
38. “Nuclear physics on an astronomical scale: the crash of neutron stars in gravitational-wave astronomy.” Colloquium, Department of Physics, University of Washington, Seattle, WA, April 2022.

37. "Gravitational-wave observations of neutron-star mergers," Workshop III: Source inference and parameter estimation in Gravitational Wave Astronomy, Part of the Long Program Mathematical and Computational Challenges in the Era of Gravitational Wave Astronomy, Institute for Pure and Applied Mathematics, UCLA, November 2021.
36. "The Universe in Gravitational Waves; Learning about dense matter," Lecture Series in Nuclear Astrophysics II, Joint Institute for Nuclear Astrophysics - Center for the Evolution of the Elements (JINA-CEE) NSF Physics Frontiers Center, November 2021.
35. "Introduction to Gravitational Waves and Data Analysis," Biweekly Neutron Star Merger Meetings, Network for Neutrinos, Nuclear Astrophysics, and Symmetries (N3AS) Physics Frontier Center, Virtual, October 2021.
34. "Gravitational-wave observations of neutron-star mergers," Physics and Theoretical Division Colloquium, Los Alamos National Laboratory, July 2021.
33. "Neutron stars as gravitational-wave sources: dense matter and stellar mass," HEP-GR Colloquium, University of Cambridge, June 2021.
32. "Observing Neutron Stars with Gravitational Waves", European Centre for Theoretical Studies in Nuclear Physics and Related Areas workshop on Neutron Stars as Multi Messenger Laboratories for Dense Matter. June 2021.
31. "Neutron stars as gravitational-wave sources: dense matter and stellar mass," Gravity Seminar, University of British Columbia, May 2021.
30. "Gravitational wave observations and neutron-star matter," NSCL/FRIB Virtual Theory Seminar, October 2020.
29. "Gravitational-wave observations and neutron star measurements," Carnegie/Caltech Theory Thursday, August 2020.
28. "LIGO/Virgo Observations and the Physics of Dense Matter," Rethinking the Relativistic Two-Body Problem: A Universe of Gravitational Waves, August 2020.
27. "Gravitational wave observations and neutron-star matter," ICTS programme on CSQCD, August 2020.
26. "Learning about Neutron-rich Matter with Gravitational Waves," California State University Long Beach Department of Physics and Astronomy Colloquium, March 2020.
25. "Learning about Neutron-rich Matter with Gravitational Waves," Harvey Mudd College, February 2020.
24. "Learning about Neutron-rich Matter with Gravitational Waves," Carnegie Science Observatories Colloquium, January 2020.
23. "Matter in neutron-star mergers," Caltech/JPL Association for Gravitational-Wave Research seminar, December 2019.
22. "Learning about the Nuclear Equation of State from Gravitational Waves," invited session on "Nucleons, nuclei and neutron stars in the era of gravitational waves," Fall Meeting of the Division of Nuclear Physics of the American Physical Society, October 2019.
21. "Neutron star matter and gravitational waves" at the Australian National University School of Physics and Engineering and at the Australian National University Research School of Astronomy & Astrophysics, July 2019.

20. "The Equation of State in Gravitational Wave Observations." KITP Conference: Merging Visions: Exploring Compact-Object Binaries with Gravity and Light. Santa Barbara, June 2019.
19. "Neutron Star Matter and Gravitational Waves." Gravity & the Extreme Universe (GEU) Annual General Meeting, Canadian Institute for Advanced Research, Kelowna, May 2019.
18. "Gravitational-wave observations and neutron star matter." Colloquium, University of California Davis, Department of Physics, Davis, May 2019.
17. "The science enabled by measuring gravitational waves." Special Session, The Landscape of Next-Generation Gravitational Wave Observatories, 233rd AAS Meeting, Seattle, January 2019.
16. "Gravitational-wave observations and neutron star matter." Strong Gravity Seminar, Perimeter Institute, Waterloo, November 2018.
15. "Neutron star matter constraints from gravitational wave observations." S@INT Seminar, Institute for Nuclear Theory, University of Washington, October 2018.
14. "Neutron star binaries and ground-based GW observations", International Pulsar Timing Array Meeting, on behalf of LSC/Virgo, June 2018.
13. "LIGO/VIRGO Observations of Neutron Star Merger GW170817." CIPANP 2018 - Thirteenth Conference on the Intersections of Particle and Nuclear Physics, LSC/Virgo, plenary, on behalf of LSC/Virgo, June 2018.
12. "Neutron star matter constraints from gravitational-wave observations," on behalf of LSC/Virgo. Nuclear astrophysics in the new era of multi-messenger astronomy workshop, Columbia University, May 2018.
11. "New Extraterrestrial Observations of the Dense Matter Equation of State," on behalf of LSC/Virgo. APS April Meeting 2018, Invited Session: "High Baryon Density Physics in Nuclei and the Cosmos," April 2018.
10. "Measuring the neutron-star equation of state with GW170817." Astronomy Seminar, Herzberg Astronomy and Astrophysics Research Centre, February 2018
9. "Measuring the neutron-star equation of state with GW170817." Astronomy Colloquium, University of British Columbia, February 2018
8. "Measuring the neutron-star equation of state with GW170817." Canadian Institute for Advanced Research Gravity & the Extreme Universe Program Meeting, Banff, February 2018
7. "Multimessenger Astronomy in light of LIGO-Virgo Discoveries." Panel with Barry Barish, Marica Branchesi, Leo Singer, Imre Bartos. 231th AAS Meeting, January 2018
6. "Measuring the neutron-star equation of state with GW170817," on behalf of LSC/Virgo. Conference on "GW170817: The First Double Neutron Star Merger," Kavli Institute for Theoretical Physics, UCSB, December 2017
5. "Matter in neutron star mergers." Caltech/JPL Association for Gravitational-Wave Research seminar, December 2017.
4. "The source of GW170817: neutron-star properties." Joint Institute for Nuclear Astrophysics - Center for the Evolution of the Elements (JINA-CEE) Livestream, December 2017
3. "GW170817: Gravitational waves from a neutron-star merger." MIT Kavli Institute's Astrophysics Colloquium, November 2017

2. "Recent Results from LIGO - GW170817: Gravitational waves from a neutron-star merger." Lawrence Berkeley National Labs, October 2017
1. "Neutron Stars: Gravitational-wave sources with matter." Center for Gravitation and Cosmology, University of Wisconsin Milwaukee, October 2017

August 2012-August 2017

35. "NS Pre-Merger simulations, tidal deformability and GW signatures," panel with Eric Poisson and Katerina Chatziioannou, eXtreme Matter meets eXtreme Gravity Workshop, Montana State XGI, August 2017
34. "Neutron stars: Gravitational-wave sources with matter." 12th Edoardo Amaldi Conference on Gravitational Waves, plenary, Pasadena CA, July 2017.
item "Dense matter in neutron-star mergers." Canadian Astronomical Society/ Société Canadienne d'Astronomie Annual Meeting, Edmonton AB, May 2017.
33. "Matter in waveforms for LIGO-Virgo analysis", with Ben Lackey, Patricia Schmidt, and James Clark. LIGO/Virgo Collaboration Meeting, Pasadena CA, March 2017.
32. "Searches for all types of binary mergers in the first Advanced LIGO observing run." (On behalf of the LIGO Scientific Collaboration) Einstein Prize Talk and Advanced LIGO Search Results, APS April Meeting, Washington DC, January 2017
31. "Gravitational Waves: Measuring ripples in spacetime" (On behalf of the LIGO Scientific Collaboration), M.J. Murdock Charitable Trust Partners in Science, San Diego CA, January 2017.
30. "Dense matter in gravitational wave sources." Institute of Nuclear Theory Program INT-16-2b, The Phases of Dense Matter, Seattle, WA, July 2016.
29. "Gravitational wave sources and discoveries." (On behalf of the LIGO Scientific Collaboration) 16th Canadian Conference on General Relativity and Relativistic Astrophysics, Vancouver, Canada, July 2016.
28. "Concepts in Gravitational Wave Science: Bringing LIGO into the Undergraduate Curriculum." Relativity and Gravitation: Contemporary Research and Teaching of Einstein's Physics, Gordon Research Conference in Physics Research and Education, June 2016 2016.
27. "Advanced LIGO: recent results, and prospects in neutron-star astrophysics." California State University, Northridge. 17 February 2016.
26. "Gravitational Wave Searches." (On behalf of the LIGO Scientific Collaboration.) 2016 Aspen Winter Conference on Particle Physics, Aspen, CO. 15 January 2016.
25. "Binary Neutron Stars." Caltech Gravitational Wave Astrophysics School (CGWAS) 2015, Pasadena, CA, July 2015.
24. "Binary Neutron Star Roadmap." LIGO Scientific Collaboration, Compact Binary Coalescence Group Face To Face Meeting, Pasadena, CA, March 2015.
23. "Neutron stars and gravitational waves." Seeing and Hearing the Violent Universe with Gravitational Waves and Light, 2014 SACNAS (Society for Advancement of Hispanics/Chicanos and Native Americans in Science) National Meeting, Los Angeles, CA, October 2014.
22. "Looking inside merging neutron stars with GW signals.", Transient Phenomena in Astronomy and Astrophysics, Second Annual GMT Community Science meeting, Washington, D.C. October 2014.

21. PI representative, “Discovering the Gravitational-wave Universe.” NSF Gravity Program PI Day, Arlington, VA, October 2014.
20. “Matter effects on binary neutron star waveforms: modeling and measuring EOS effects up to merger.” Binary Star Coalescence as a Fundamental Physics Laboratory, Institute for Nuclear Theory program INT-14-2a, Seattle, WA. 3 July 2014.
19. “Dense matter and gravitational waves: neutron stars in coalescing binaries.” Pearson Colloquium Series in Physics, CSU Dominguez Hills, Carson, CA. 28 April 2014.
18. “Extracting neutron star radii from gravitational wave data.” Invited session on “Neutron Star Radii”, April Meeting 2014 of the American Physical Society, Savannah, Georgia. 5 April 2014.
17. “Listening to the Symphony of Spacetime.” NSM-ICC Symposium Faculty Lecture Series, California State University Fullerton, 19 March 2014.
16. “Dense matter and gravitational waves: neutron stars in coalescing binaries.” Seminar, Canadian Institute for Theoretical Astrophysics, University of Toronto, Toronto, Canada. 10 March 2014.
15. “Listening to the Symphony of Spacetime.” Colloquium series “What Physicists Do,” Sonoma State University, Sonoma, CA, 3 March 2014.
14. “Dense matter and gravitational waves: neutron stars in coalescing binaries.” Astrophysics Seminar at UC Irvine, Irvine, CA, 25 February 2014.
13. “Gravitational wave data analysis and the neutron star equation of state.” Invited Lecturer, Mexican Astrophysics School 2014, Look and Listen: Electromagnetic and Gravitational Wave Signals from Compact Objects. Playa del Carmen, Quintana Roo, Mexico. 20-23 January 2014.
12. “Measuring the Neutron Star Equation of State”, Gravitational Wave Physics and Astronomy Workshop 2013, Inter University Centre for Astronomy and Astrophysics, Pune, India. 18 December 2013.
11. “Extreme tides: the dynamic response of neutron stars in merging binaries.” Astrophysics Colloquium, Embry-Riddle Aeronautical University, Prescott, AZ, USA. 12 November 2013.
10. “Gravitational Waves and LIGO.” KIPAC@10 Big Questions in Particle Astrophysics and Cosmology, SLAC National Accelerator Laboratory, Menlo Park, CA. In Session “Whatever next? Compact objects’ continuing application as physics laboratories.” *Requested contribution*. 4 September 2013.
9. “From perturbation to observation: measuring the response of neutron stars.” Connections for Women: Mathematical General Relativity. Mathematical Sciences Research Institute, Berkeley, CA. 3 September 2013.
8. “The Physics of Gravitational Wave Sources: Neutron-star and neutron-star/black-hole binaries.” Lecture at the Caltech Gravitational-Wave Astrophysics School, California Institute of Technology, Pasadena, CA. 23 July 2013.
7. “Neutron stars from inspiral to merger: tracing the effects of the equation of state.” Long-term workshop on Gravitational waves and numerical relativity, Yukawa Institute for Theoretical Physics, Kyoto, Japan. 29 May 2013.
6. “The neutron-star equation of state: Where does it matter in waveforms?” Session: Waveform Accuracy Requirements for Astrophysics. Science from the First Gravitational Wave Detections Workshop, South Padre Island, TX, USA. 23 May 2013.

5. "The neutron-star equation of state: Where does it matter?" Session: Compact-object Models and Astrophysics Extraction (beyond long lived binaries.) Science from the First Gravitational Wave Detections Workshop, South Padre Island, TX, USA. 22 May 2013.
4. "Learning about dense matter from gravitational waves." in Invited Session: Gravitational Wave Astrophysics. APS April Meeting 2013, Denver, CO, USA. 14 April 2013.
3. "Extreme tides: the dynamic response of neutron stars in merging binaries." Colloquium at California State University Long Beach, Long Beach, CA, USA. 13 November 2013.
2. "Are we getting the right nuclear physics when modelling gravitational waveforms?" With G. Shen. Chirps, Mergers and Explosions: The Final Moments of Coalescing Compact Binaries. Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA. 21 September 2012.
1. "Extracting Information on Neutron Stars via Gravitational-wave Observations." With T. Hinderer. Chirps, Mergers and Explosions: The Final Moments of Coalescing Compact Binaries. Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA. 5 September 2012.

before August 2012

23. "Gravitational-wave Astrophysics with Systems Containing Matter." Rattle and Shine: Gravitational Wave and Electromagnetic Studies of Compact Binary Mergers. Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA. 1 August 2012.
22. "The dynamic response of merging neutron stars." California State University Fullerton, Fullerton, CA, USA. 1 February 2012.
21. "Extreme tides: the dynamic response of neutron stars in coalescing binaries." Astrophysics Seminar, University of Florida, Gainesville, FL, USA. 28 October 2011.
20. "Learning about dense matter from gravitational-wave observations." Institute for Theoretical Science Seminar, University of Oregon, Eugene, OR, USA. 11 October 2011.
19. "Neutron stars: from nuclear physics to gravitational-wave astronomy." LSST Science Lunch, University of Washington, Seattle, WA, USA. 10 October 2011.
18. "Measuring a cosmological distance-redshift relationship using only gravitational wave observations of binary neutron star coalescences." With C. Messenger. LSC-Virgo wide Data Analysis Council meeting (telecon). 12 August 2011.
17. "EOS/Parameter choices for NSNS/NSBH simulations." Microphysics in Computational Relativistic Astrophysics, Perimeter Institute, Waterloo, Canada. 23 June 2011.
16. "Measuring the neutron-star equation of state using gravitational waves from binary observations." April Meeting of the American Physics Society (*Invited*), Anaheim, CA, USA. 30 April 2011.
15. "Constraining the equation of state using advanced gravitational-wave detectors." Gravitational Wave Physics and Astronomy Workshop (GWPAW). Milwaukee, WI, USA. 26 January 2011.
14. "Measuring waveforms of binary neutron stars." Caltech-JPL Association for Gravitational Wave Research Seminar. Pasadena, CA, USA. 4 January 2011.

13. "Measuring the equation of state using gravitational waves from binary observations." Exploring Physics with Neutron Stars, a celebration of Fred Lamb's 65th Birthday. Tucson, Arizona. 19 November 2010.
12. "Measuring the size of neutron stars using gravitational waves." Department of Physics and Astronomy, University of Mississippi. 2 November 2010.
11. "What can we learn about neutron stars from binary neutron star coalescences?" Einstein Telescope Working Group 4 meeting. Nice, France. 1 September 2010.
10. "Modelling waveforms from binary neutron stars." NRDA/CAPRA 2010: Theory Meets Data Analysis at Comparable and Extreme Mass Ratios. Perimeter Institute, Waterloo, Canada. 25 June 2010.
9. "Measuring tidal deformation from binary neutron star inspiral." Yukawa Institute for Theoretical Physics, Kyoto, Japan. 14 May 2010.
8. "Dense matter and gravitational waves." Montana State University, Bozeman, MT, USA. 5 March 2010.
7. "Tidal deformation in binary neutron star inspiral." GR Seminar Series, Eberhard-Karls-Universität Tübingen, Germany. 11 Feb 2010.
6. "Tidal deformation in binary neutron star inspiral." University of Southampton Relativity Seminars, Southampton, UK. 4 Dec 2009.
5. "Gravitational waves: modelling sources." Lectures at the 3rd International Summer School on Astroparticle Physics, Radboud University Nijmegen, Nijmegen, the Netherlands. 19-28 August 2009.
4. "Science goals for NINJA 2 - a NR-Matter Perspective," J. Faber, I. Hawke, C. Ott, and J. Read. NRDA 2009: Numerical Relativity and Data Analysis Meeting, AEI, Potsdam, Germany. 9 July 2009.
3. "Binary neutron star inspiral and the equation of state." University of Wisconsin-Milwaukee, Milwaukee, WI, USA. 5 June 2009.
2. "Physics from binary neutron star coalescences." Einstein Telescope Working Group 4 Meeting, Cardiff University (via telephone). 25 March 2009.
1. "Measuring the size of neutron stars using gravitational waves." Cardiff University, Wales. 6 March 2009.

SELECTED
CONTRIBUTED
TALKS

"Observing neutron stars with Cosmic Explorer and Einstein Telescope." APS April Meeting 2020, online.

"Matter in compact binary mergers." 231st Meeting of the AAS, Washington DC. 10 January 2018.

"Gravitational waves from neutron-star mergers." APS April Meeting, Salt Lake City, UT, USA. 19 April 2016.

"Measuring luminosity distance and redshift using only gravitational wave observations of binary neutron star coalescences." APS April Meeting, Atlanta, GA, USA. 3 April 2012.

"Build your own embedded spacetime: A theoretical outreach talk" Outreach and Public Engagement Session, Amaldi 9, Cardiff, UK, 12 July 2011.

SELECTED STUDENT
POSTERS &
PRESENTATIONS

Emily Wuchner. "Binary Neutron Star Parameter Estimation Simulations," LVK March Meeting, March 2022.

Marc Penuliar. "Neutron Star Masses and GW190425," APS April Meeting, April 2021.

Derek White. "Numerical Simulation Infrastructure For Gravitational Wave Data Analysis." APS April Meeting, April 2019.

Isabella Molina. "Neutron Star Measurements in Third Generation Gravitational Wave Observatories." APS April Meeting, April 2019.

Erick Flynn. "Hybrid Gravitational Wave Systematics and Model Comparisons for Binary Neutron Star Systems" at the APS April Meeting Session L16: Gravitational Waves: Source Modeling, April 2019.

Rossella Gamba, ""The impact of the crust equation of state on the analysis of GW170817," European Physical Society conference on Gravitation (Rome), February 2019.

Erick Flynn. "Hybrid Gravitational Wave Systematics and Model Comparisons." 2018 Annual Meeting of the APS Far West Section. *Flynn was awarded the 2018 Kennedy Reed Award for Best Theoretical Research for this presentation.*

Isabella Molina. "Measuring Properties of Neutron Stars Using Third Generation Gravitational Wave Detectors." Citrus College Research Symposium, September 2016.

Torrey Cullen. "Effects of Waveform Variation in Binary Neutron Star Systems", Pacific Coast Gravity Meeting, UC Santa Barbara, March 2017.

Torrey Cullen. "Hybridizing Gravitational Waveforms of Inspiralling Binary Neutron Star Systems." APS April Meeting. Salt Lake City, UT. April 2016.

Conner Park. "Phenomenological Modeling of Neutron Star Merger." APS April Meeting. Salt Lake City, UT. April 2016.

Torrey Cullen. "Hybridizing Gravitational Waveforms of Inspiralling Binary Neutron Star Systems." Southern California Conference for Undergraduate Research, November 2015.

Phillipe Rodriguez. "Orbital Dynamics of Merging Neutron Stars." Western Regional Honors Conference, University of Nevada, Reno, April 10-12, 2015.

Gabriela Serna. "Intro Astronomy materials developed at California State University Fullerton" LSC-Virgo EPO Group Teleconference. 11 July 2014.

Omar Yousuf. "Predicting precursor Gamma Ray Bursts from Merging Binary Neutron Star Systems." NSM-ICC Symposium, California State University Fullerton, Student Oral Presentation, 19 March 2014.

Susan Vong. Measuring the Gravitational Waves from Neutron Stars. Citrus College Physics Festival, December 2013.

Veronica Lockett-Ruiz, Jocelyn Read. “Resonant effects on BNS Merger gravitational waves.” LSC-VIRGO PE+GR+Tides teleconference. October 2013.

Veronica Lockett-Ruiz, Susan Vong, Jocelyn Read. “Resonant Effects on BNS Merger Gravitational Waveforms.” LSC-Virgo September Meeting, Hannover, Germany, Sept 2013.

TEACHING

California State University, Fullerton:

- CNSM 101 Fa2022
- Physics 120 - Introduction to Astronomy Fa2012, Sp2013
(Course redesigned to Astronomy 101 by Jocelyn Read and Joshua Smith at CSUF)
- Astronomy 101 - Introduction to Astronomy Fa2013, Fa2014, Fa2015, Sp2016, Sp2017, Fa2018, Sp2019, Fa2020, Sp2021, Fa2021, Sp2022
(Course converted to online synchronous version in Fall 2020, online version submitted to Curriculum committee Fall 2021)
- Astronomy 101L - Introduction to Astronomy Lab Sp2013
(New GE course developed by Jocelyn Read at CSUF)
- Physics 330 A - Electromagnetic Theory I Fa2015, Fa2018, Fa2021
Upper-division partially flipped class following University of Colorado Boulder materials
- Physics 330 B - Electromagnetic Theory II Sp2016, Sp2018, Sp2019
Upper-division partially flipped class following University of Colorado Boulder materials
- Physics 416 - Thermal and Statistical Physics Fa2020
- Physics 516 - Statistical Mechanics and Thermodynamics Fa2020
Joint upper division / graduate course
- Physics 530 A - Electromagnetism I Sp2014, Sp2017, Sp2018, Sp2022
Graduate-level Electrodynamics
- Physics 449 - Independent Study 2012-
- Physics 557 - Graduate Project 2012-
- Physics 559 - Independent Graduate Study 2012-
- Lab TA supervision for undergraduate physics labs 2012-2015,2022

Supervision and mentorship of 24 undergraduate students (Heather Chilton, Eric Flynn, Susan Vong, Omar Yousuf, Hannah Allec, Sean Hatcher, Michael Giolli, Conner Park, Torrey Cullen, Isabella Molina, Kevin Abbott, Derek White, Erick Leon, Oscar Martinez, Marc Penuliar, Gabriela Jaimes, Alex Hernandez, Abel Jesus, Anny Antunovich, Cinthia Ramos, Emily Wuchner, Sherelene DeBelen, Sandra Serrano), 13 Masters students (Veronica Lockett-Ruiz, April Hankins, Ivan Ozaeta, Torrey Cullen, Eric Flynn, Amauri Tapia, Rossella Gamba, Derek White, Mary Usufzy, Izzy Kerszenbaum, Abel Jesus, Herminio Carrillo, Marc Penuliar), and high school interns (Stevie Rodriguez, Megan Loh) in independent study, research, education, and outreach projects.

Postdoctoral Mentor to Phillipe Landry, now at the Canadian Institute for Theoretical Astrophysics; Landry co-authored 17 articles at CSUF 2019-2021

Faculty Mentor, Transforming Academic and Cultural Identidad through Biliteracy (TACIB) K12 Teacher Program 2014-2015

- Summer Institute, June 29-July 2, 2015. Presented: “Astronomers and the Mystery of the Gamma Ray Bursts.”
- Summer Institute June 23-27, 2014. Presented: “Physics and Astronomy for California Science Standards.”
- First Joint Meeting between Teacher Fellows and Faculty Mentors, 21 March 2014. Presented: “Lab Activities on Wave Motion” with Shovit Bhari.
- Joint Meetings between Teacher Fellows and Faculty Mentors, 22 April 2016 and 14 November 2014. Focus on Culturally Responsive Teaching Workshop participation.

Workshop: “Proven Course Redesign eAcademy 2013,” California State Polytechnic University, Pomona, CA. 29-31 July 2013.

Workshop: “Improving the College Introductory Astronomy and Space Science Course Through Active Engagement: A Tier I Teaching Excellence Workshop.” AAS, Long Beach, CA. 5-6 January 2013.

SCHOLARLY
COMMUNITY

GWPAC Visitor Program, Leslie Wade, Assistant Professor of Physics at Kenyon College, August 2022

GWPAC Visitor Program, Richard O’Shaughnessy, associate professor in RIT’s School of Mathematical Sciences, August 2022

Discussion Lead. From QCD to Gravitational Waves, Photonuclear Reactions Gordon Research Conference, Frontiers in Nuclear and Hadronic Physics, Holderness, NH, August 2022.

Scientific Organizer, The r-process and the nuclear EOS after aLIGO’s third observing run. Institute for Nuclear Theory Program INT 20-1b. Online pre-workshop March-April 2020. In-person workshop May 2022.

Organizer and Chair. Invited session B01: Next-generation Gravitational Wave Observatories. , APS April Meeting 2022, New York, April 2022.

Scientific Organizing Committee, Seventh Physics and Astronomy at the Extreme (PAX-VII) Workshop, Virtual, August 2021

Scientific Organizer, Exploring Extreme Matter in the Era of Multimessenger Astronomy: from the Cosmos to Quarks. Aspen Summer Program, July 2021.

Organizing Committee, JINA Horizons, Joint Institute for Nuclear Astrophysics - Center for the Evolution of the Elements, Nov-Dec 2020.

Organizing Committee, First Cosmic Explorer Meeting, October 2020.

Lead Scientific Organizer, Astrophysics with Gravitational-Wave Populations. Aspen Winter Conference, February 2019.

Local Organizing Committee, Pacific Coast Gravity Meeting 32, CSU Fullerton, April 2016

Scientific Organizing Committee, Microphysics in Computational Relativistic Astrophysics Workshop 2015 (MICRA 2015), Stokholm, Sweden, August 2015.

Local Organizing Committee, Numerical and Analytical Relativity and Data Analysis, CSU Fullerton, August 2014.

Scientific Organizing Committee, Numerical Relativity Meets Data Analysis (NRDA), Cardiff, Wales July 10-15 2011

Scientific and Local Organizer, Numerical and Analytical Relativity and Data Analysis (NARDA) Workshop, California State University Fullerton, August 2014.

OTHER POSITIONS	Member-At-Large, Topical Group on Gravitation Executive Committee. American Physical Society.	2013-2016
	Co-chair, LIGO Scientific Collaboration Academic Advisory Council.	2014-2016
	Postdoc representative, LSC Academic Advisory Council.	2012-2014
PROFESSIONAL MEMBERSHIP	Member of the Cosmic Explorer Consortium	2020-
	Member of the American Astronomical Society,	2017-
	Member of SACNAS, the Society for Advancement of Chicanos/Hispanics & Native Americans in Science,	2013-
	Member of the LIGO Scientific Collaboration,	2010-
	Member of American Physical Society Division of Astrophysics and Topical Group on Gravitation	2005-
	Member of the Einstein Telescope Astrophysics Working Group	2009-2010
ADVISORY AND REVIEW	Scientific Advisory Committee (SAC) of the ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav)	2021-
	NASA Astrophysics Theory Program Peer Review Panel	
	NSF Astronomy REU Sites Panel	
	NSF Graduate Research Fellowship Program Panel	
	NSF Gravity Review Panel	
	External reviewer, Classical and Quantum Gravity	2017-
	External reviewer, Nature Astrophysics	2018-
	External reviewer, ApJ Letters	2017-
	External reviewer, Phys. Rev. D	2010-
	External reviewer, Phys. Rev. Lett.	2013-
	External reviewer, Journal of Physics: Conference Series (JPCS)	2014-

	LSC internal reviewer	2012-
UNIVERSITY SERVICE	Department Personnel Standards Committee, CSUF Department of Physics	2022-2023
	College Curriculum Committee, College of Natural Sciences and Mathematics	2021-2022
	Department Election Liason, CSUF Department of Physics	2021
	College Curriculum Committee, Chair College of Natural Sciences and Mathematics	2020-2021
	College Curriculum Committee, College of Natural Sciences and Mathematics	2018-2019
	CNSM Faculty Awards Committee CSUF College of Natural Sciences and Mathematics	2018-2019
	Department Personnel Committee CSUF Department of Physics	2018-2019
	Curriculum and Assessment committee, CSUF Department of Physics	2012-2013, 2013-2014, 2015-2016, 2016-2017
	Department Search Committee CSUF Department of Physics	2014
	CNSM Faculty Awards Committee, CSUF College of Natural Sciences and Mathematics	2013-2014
PUBLIC AUDIENCE PRESENTATIONS	<p>“A Merger in Space: Black Holes And Neutron Stars.” Panel with Vicky Kalogera, Duncan Brown, Franz Pretorius, Mario Livio. NYU Global Center, World Science Festival, May 2018</p> <p>“All about Merging Neutron Stars.” Astronomy on Tap, Boston, November 2017</p> <p>“Gravity and Light.” Chabot Space and Science Center Annual Fundraising Gala, October 2017</p> <p>“Gravitational Waves and Neutron Stars.” 2017 Peter Sim Lecture, Royal Astronomy Society of Canada, Calgary AB, March 2017</p> <p>“Dense matter and gravitational waves: Listening to the symphony of space-time.” Public lecture, Orange County Astronomers General Meeting, Chapman University, Orange, CA. 8 August 2014.</p> <p>“Einstein’s Gravitational Waves: Recent and Future Discoveries.” With Geoffrey Lovelace and Joshua Smith. Fullerton Library Town and Gown Series, Fullerton, CA. 13 May 2014.</p>	

“Dense Matter and Gravitational Waves: Listening to the Symphony of Spacetime.” Public lecture, Astrocamp, Idylwild, CA. 6 May 2014.

“The Intense Life of Stars after Death.” Public lecture. Oxford Science Café, Oxford, MS, USA. 15 November 2011.

MEDIA
INTERVIEWS
& QUOTATIONS

Nollyanne Delacruz for the CSUF Daily Titan article “A simple guide to stargazing this autumn,” published November 2021.

Adrian Cho for the Science article “Giant detectors could hear murmurs from across universe,” DOI: 10.1126/science.371.6534.1089, published March 2021.

Adrian Cho for the Science article “European plan for gigantic new gravitational wave detector passes milestone,” published July 2021.

Katia Moskvich for her book “Neutron Stars: The Quest to Understand the Zombies of the Cosmos,” Harvard University Press (September 15, 2020).

Charlie Wood for the Popular Science feature “Why are big neutron stars like Tootsie Pops?” published June 2020

Monica Young for the Sky and Telescope feature “GRAVITATIONAL WAVES PUT RULER TO NEUTRON STARS” published March 2020

Adam Mann for the Nature News feature “The golden age of neutron-star physics has arrived,” published March 2020.

Charlie Wood for the Scientific American article “Astronomers Spy a Black Hole Devouring a Neutron Star” in August 2019.

Sophia Chen for the Wired article “Distant Neutron Stars Could Reveal the Quirks of Quarks,” May 2019

Clara Moskowitz for the Scientific American article “Neutron Stars: Nature’s Weirdest Form of Matter,” March 2019

Joshua Sokol for the Scientific American article “Gravitational Waves Reveal the Hearts of Neutron Stars,” June 2018

Joshua Sokol for the Quanta Magazine article “Squishy or Solid? A Neutron Star’s Insides Open to Debate,” October 2017.

Sophia Chen for the Wired article “Neutron Stars Collide, and Astrophysics Feels the Ripple,” October 2017

Davide Castelvecchi in the Nature News article “Colliding stars spark rush to solve cosmic mysteries.” Nature 550, 309–310 (19 October 2017)

Lauren Williams for the OC Register article “Cal State Fullerton scientists, LIGO detect neutron star collision for first time ever.” October 2017

SELECTED
OUTREACH
ACTIVITIES

Sanden Totten for Southern California Public Radio, “Caltech wasn’t the only SoCal school helping discover gravitational waves”, February 2016

Alexandra Witze for Nature News, “ Young scientists poised to ride the gravitational wave: Detection of ripples in space-time kicks off new era in physics.” February 2016

Editor-in-chief, LIGO Magazine. <http://www.ligo.org/magazine/> 2016-2018

Classroom visit, Adelaide Price Elementary School, Anaheim CA (3 classes, joint session 50 students), Spring 2017

Classroom visit, Slauson Middle School, Azusa CA (4 middle school classes, two joint sessions, 100 students), Spring 2017

Gravitational Wave outreach event for TACIB high school student visitors. (3 sessions, 120 students) California State University Fullerton, Fullerton, CA. 11 March 2016.

Member of the LSC Education and Public Outreach Working group, social media task force 2011-2016

Planetarium demonstration, Supermoon Eclipse event, California State University Fullerton, Fullerton, CA. 27 September 2015.

Classroom visit for astronomy and astrophysics Q&A; linear functions and the expanding universe, Sycamore Jr. High School, Anaheim, CA, 3 December 2015.

Planetarium demonstration, Concert Under the Stars, California State University Fullerton, Fullerton, CA. 13 September 2014.

Classroom visit for solar system activity, South Jr High School, Anaheim, CA, 19 May 2014.

CSUF Physics 120/Astronomy 101 Observing Nights at CSUF 2012-2015

Editor, LIGO Magazine 2012-2014

Telescope Observing Night, Raymond Elementary Jan 2013

“The Titanium Physicists Podcast.”

<http://titaniumphysicists.brachiolopemedia.com/>

Guest physicist on episodes including:

Ep81: LISA the Giant Tumbling Space Triangle Sept 2019

Ep47: The Song of Falling Stars With Robot Hugs June 2014

Ep43: Approaching Singularity with Jesse Moynihan Feb 2014

Ep39: Pasta Matter with Sean Martin Dec 2013

Ep36: Useless Spheres and Wasteful Rockets with Mur Lafferty Sep 2013

Ep29: Dark Equivalence with Alisdair Stuart Feb 2013

Ep27: Death and Heat Death with Cory Doctorow Dec 2012

Ep25: The No Bear Theorem with Anne Casselman Nov 2012

Ep20: Time Dilates When You’re Having Fun with Mookie Terraccinao Jul 2012

Additional episodes: 1, 2, 3, 4, 6, 8, 9, 10, 16

“Weird stuff in tiny stars.” Back page article. LIGO Magazine, Issue 2, March 2013.