
Leah Jenks

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Academic Appointments

Johns Hopkins University	2025 - Present
• Provost's Postdoctoral Fellow	
University of Chicago	2022 - 2025
• KICP Postdoctoral Fellow	

Education

Brown University	2018-2022
• PhD in Physics	
University of Edinburgh	2017-2018
• MSc in Theoretical Physics	
Colgate University	2013-2017
• BA in Astronomy/Physics, <i>Magna Cum Laude</i>	

Honors and Awards

• Anthony Houghton Award for Excellence in Theoretical Physics	2022
• Sigma Xi Scientific Research Honor Society	2020
• Physics and Astronomy Department Founders Award	2017
• Departmental Honors in Astronomy/Physics	2017
• Michael S. '73 and Linda A. Walsh Endowed Scholarship	2016 - 2017
• Dean's Award for Academic Excellence	2014 - 2017

Publications

Author lists denoted with a * are alphabetical, per convention in theoretical particle physics.

22. **L. Jenks**, and M. Kamionkowski, "Gravitational-Wave Propagation Through the Axiverse," arXiv:2603.15838 (2026)
21. S. Alexander, G. Gabadadze, **L. Jenks***, and N. Yunes, "Cosmology of Gravi-Axions," arXiv:2512.00154 (2025)
20. T. Chowdhury, **L. Jenks***, E.W. Kolb, and E. McDonough, "Higgs Inflation: Particle Factory," arXiv:2510.24651 (2025)
19. **L. Jenks***, E.W. Kolb, and K. Thyme, "Gravitational Particle Production of Scalars: Analytic and Numerical Approaches Including Early Reheating," arXiv:2410.03938, *Journal of High Energy Physics* 05, 077 (2025)
18. K. Inomata, **L. Jenks***, and M. Kamionkowski, "Parity-breaking galaxy 4-point function from lensing by chiral gravitational waves," arXiv:2408.03994, *Physical Review D* 111, 4, 043504 (2025)
17. C. Capanelli, **L. Jenks***, E.W. Kolb, and E. McDonough, "Gravitational Particle Production of Completely Dark Photons with Nonminimal Couplings to Gravity," arXiv:2405.19390, *Journal of High Energy Physics* 09, 071 (2024)

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16. C. Capanelli, **L. Jenks***, E.W. Kolb, and E. McDonough, "Runaway Gravitational Production of Dark Photons," arXiv:2403.15536, *Physical Review Letters*, Editor's Suggestion 133, 6, 6 (2024)
 15. T. Daniel and **L. Jenks***, and S. Alexander, "Gravitational Waves in Chern-Simons-Gauss-Bonnet Gravity," arXiv:2403.09373, *Physical Review D* 109 12, 12 (2024)
 14. M. Lagos, **L. Jenks**, M. Isi, K. Hotokezaka, B. Metzger, E. Burns, W. Farr, S. Perkins, K. Wong, and N. Yunes, "Birefringence Tests of Gravity with Multi-Messenger Binaries," arXiv:2402.05316, *Physical Review D* 109, 12, 124003 (2024)
 13. T. Callister, **L. Jenks**, D. Holz, and N. Yunes, "A New Probe of Gravitational Parity Violation Through (Non-) Observation of the Stochastic Gravitational-Wave Background," arXiv:2312.12532, *Physical Review D*, 111, 4, 044041 (2024)
 12. I. Holst, W. Hu, and **L. Jenks***, "Dark Matter Isocurvature from Curvature," arXiv:2311.17164, *Physical Review D* 109 6, 063507 (2023)
 11. C. Capanelli, **L. Jenks***, E.W. Kolb, and E. McDonough, "Cosmological Implications of Kalb-Ramond Fields," arXiv:2309.02485, *Journal of High Energy Physics*, 06, 075 (2024)
 10. **L. Jenks**, M. Lagos, L. Choi, and N. Yunes, "Parameterized Parity Violation in Gravitational Wave Propagation," arXiv:2205.10478, *Physical Review D* 108, 4, 044023 (2023)
 9. **L. Jenks**, K. Koutrolikos, E. McDonough, S. Alexander, and S.J. Gates, "Towards a Direct Detection of the Spin of Dark Matter," arXiv:2212.07442, *Physics Letters B* 842, 137956 (2023)
 8. S. Alexander, G. Gabadadze, **L. Jenks***, and N. Yunes, "Black Hole Superradiance in Dynamical Chern-Simons Gravity," arXiv:2201.02220, *Physical Review D*, 107, 8, 084016 (2023)
 7. S. Alexander, G. Gabadadze, **L. Jenks***, and N. Yunes, "The Chern-Simons Caps for Rotating Black Holes," arXiv:2104.00019, *Physical Review D*, 104,6, 064033 (2021)
 6. S. Alexander, **L. Jenks***, and E. McDonough, "Higher Spin Dark Matter," arXiv:2010.15125, *Physics Letters B*, 819, 136436 (2021)
 5. **L. Jenks**, K. Yagi, and S. Alexander, "Probing Noncommutative Gravity with Gravitational Waves and Binary Pulsar Observations," arXiv:2007.09714, *Physical Review D*, 102, 084022 (2020)
 4. S. Alexander, **L. Jenks***, P. Jirousek, J. Magueijo, and T. Zlosnik, "Gravity Waves in Parity Violating Copernican Universes," arXiv:2001.06373, *Physical Review D*, 102, 4, 044039 (2020)
 3. S. Alexander, S. J. Gates Jr., **L. Jenks***, K. Koutrolikos, and E. McDonough, "Higher Spin Supersymmetry at the Cosmological Collider: Sculpting SUSY Rilles in the CMB," arXiv:1907.05829, *Journal of High Energy Physics*, 10, 156 (2019)
 2. Z. R. Weaver, T. J. Balonek, S. G. Jorstad, et al. (incl. **L. G. Jenks**), "The June 2016 Optical and Gamma-Ray Outburst and Optical Micro-Variability of the Blazar 3C 454.3," arXiv:1903.04587, *The Astrophysical Journal*, 875, 15 (2019)
 1. B. G. Elmegreen, D. M. Elmegreen, B. Tompkins, and **L. G. Jenks**, "Thick Disks in the Hubble Space Telescope Frontier Fields," arXiv:1709.00114, *The Astrophysical Journal*, 847, 14 (2017)

Contributed Reports and White Papers

1. Gamma-ray Transient Network Science Analysis Group Report, E. Burns et al. (incl. **L. Jenks**) (2023)

Invited Talks

Conferences & Workshops

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11. Rencontres du Vietnam: Cosmology (*Runaway*) *Gravitational Production of Dark Photons*, August 2025
 10. PAX/CE Symposium, Panelist: *Cosmology*, June 2025
 9. Frontiers Beyond the Standard Model IV (*Runaway*) *Gravitational Production of Dark Photons*, May 2025
 8. Kashiwa-no-ha Dark Matter Symposium *Gravitational Wave Probes of Parity Violation*, October 2024
 7. Winnipeg Institute for Theoretical Physics Summer School *Gravitational-Wave Theory*, August 2024
 6. New Frontiers in Strong Gravity *Strong Gravity Probes of Parity Violation*, July 2024
 5. Caribbean Future of Science Symposium, *Catastrophic Gravitational Production of Dark Photons*, March 2024
 4. The Early Universe: A Window into New Physics Workshop *Cosmological Implications of Kalb-Ramond Fields*, October 2023
 3. Parity Violation from Home Conference: *Gravitational Wave Probes of Parity Violation*, October 2023
 2. UIUC ICASU Modified Gravity Workshop: *Gravitational Wave Probes of Parity Violation*, May 2023
 1. ICERM Workshop: Advances in Chern-Simons Classical and Quantum Gravity: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, May 2022

Colloquia

4. UNC Physics & Astronomy Colloquium: *Gravity and the Rest of the World*, February 2026
3. LSU Physics Colloquium: *Exploring Parity Violation with Gravitational Waves*, October 2023
2. Colgate Physics & Astronomy Colloquium: *Higher Spin Dark Matter*, October 19, 2021
1. UMass Dartmouth Physics Colloquium: *Higher Spin Dark Matter*, December 3, 2020

Seminars & Group Meetings

27. UNC Particle Theory Seminar, *A Tale of Three Gravi-Axions*, February 5, 2026
26. University of Pennsylvania High Energy Theory Seminar, *Inflation as a Particle Factory*, November 11, 2025
25. Johns Hopkins University Center for Astrophysical Sciences Seminar, *Inflation as a Particle Factory*, October 27, 2025
24. Berkeley Center for Theoretical Physics Pheno Seminar: (*Runaway*) *Gravitational Particle Production of Dark Photons*, March 26, 2025
23. UIUC Special Seminar: *New Particles at the Cosmic Frontier*, February 17, 2025
22. Fermilab Theory Seminar: (*Runaway*) *Gravitational Particle Production of Dark Photons*, December 2, 2024
21. NYU HEP Seminar: (*Runaway*) *Gravitational Particle Production of Dark Photons*, November 20, 2024
20. MIT/Tufts Cosmology Seminar *Gravitational Wave Probes of Parity Violation*, November 19, 2024
19. MIT Particle and Nuclear Theory Seminar (*Runaway*) *Gravitational Particle Production of Dark Photons*, November 18, 2024
18. Quantum Gravity and All of That Seminar: (*Runaway*) *Gravitational Particle Production of Dark Photons*, May 16, 2024
17. Copernicus Webinar: (*Runaway*) *Gravitational Particle Production of Dark Photons*, May 14, 2024

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16. CIERA Special Seminar: *Gravitational Wave Probes of Parity Violation*, October 9, 2023
 15. Sydney-CPPC Seminar: *Cosmological Probes of Higher Spin Fields*, March 8, 2023
 14. UIUC Astrophysics, Cosmology, and Gravitation Seminar: *Cosmological Probes of Higher Spin Fields*, October 5, 2022
 13. University of Hawaii Cosmology Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, April 7, 2022
 12. Perimeter Institute Cosmology Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, December 14, 2021
 11. McGill University HEP Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, November 29, 2021
 10. Imperial College London Theory Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, November 16, 2021
 9. UVA Gravity Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, November 8, 2021
 8. BSM PANDEMIC Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, October 26, 2021
 7. MIT/Tufts Cosmology Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, October 19, 2021
 6. NYU HEP Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, October 8, 2021
 5. Brown Theoretical Physics Center Seminar: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, October 7, 2021
 4. Columbia Theory Group Meeting: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, October 5, 2021
 3. CCA Lunch Seminar: *The Chern-Simons Caps for Rotating Black Holes*, April 22, 2021
 2. PACMAN Group Meeting: *Higher Spin Dark Matter*, November 10, 2020
 1. NYU/CCA, Cosmology x Data Science Group Meeting: *Probing Noncommutative Gravity with Gravitational Waves and Binary Pulsar Observations*, October 16, 2020

Contributed Posters and Presentations

16. Talk: *Phenomenological Implications of Gravi-Axions*, Amaldi/GR Conference, July 2025
15. Talk: *Aspects of Dark Photons with Nonminimal Couplings to Gravity*, COSMO Conference, October 2024
14. Talk: *(Runaway) Gravitational Production of Dark Photons*, Quantum Aspects of Inflationary Cosmology Workshop, July 2024
13. Talk: *Gravitational Wave Probes of Parity Violation*, COSMO Conference, September 2023
12. Talk: *Gravitational Wave Probes of Parity Violation*, Amaldi15 Conference, July 2023

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11. Talk: *Probing the Spin of Dark Matter with Directional Direct Detection*, American Physical Society April Meeting, April 2023
 10. Talk: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, Testing Gravity, January 2023
 9. Talk: *Aspects of Rotating Black Holes in Dynamical Chern-Simons Gravity*, Midwest Relativity Meeting, November 2021
 8. Talk: *Higher Spin Dark Matter*, American Physical Society April Meeting, April 2021
 7. Poster Presentation: *The First Law of Black Hole Mechanics in Higher Dimensions*, Brown University Young Scholars Conference, October 2018
 6. Poster Presentation: *Thick Disks and Galaxy Morphology in the Hubble Space Telescope Frontier Fields*, American Astronomical Society Meeting, January 2017
 5. Poster Presentation: *The Optical Variability of the Blazar 3C 454.3 over Three Decades from the Colgate University Foggy Bottom Observatory*, American Astronomical Society Meeting, January 2017
 4. Talk: *WIMPzilla Production in the Inflationary Epoch of the Early Universe*, Syracuse University Undergraduate Research Day, November 2016
 3. Talk & Proceedings Paper: *High Redshift Galaxy Morphology in the Hubble Space Telescope Frontier Fields*, Keck Northeast Astronomy Consortium Symposium, October 2016
 2. Poster Presentation: *The 2013-2015 Optical Outburst and Light Curve of the Blazar 3C 454.3*, American Astronomical Society Meeting, January 2016
 1. Talk & Proceedings Paper: *The Historic Light Curve of the Blazar 3C 454.3*, Keck Northeast Astronomy Consortium Symposium, October 2015

Teaching

Guest Lecturer (University of Chicago)	January 2024, 2025
<ul style="list-style-type: none"> • Astronomy 182: The Origins and Evolution of the Universe 	
Invited Lecturer on Gravitational-Wave Theory	August 2024
<ul style="list-style-type: none"> • Winnipeg Institute for Theoretical Physics Summer School 	
Summer@Brown Pre-College Instructor	Summer 2019, 2021-2023
<ul style="list-style-type: none"> • Origins of the Universe: From the Big Bang to Black Holes 	2023
<ul style="list-style-type: none"> • Quantum Mechanics and the Nature of Reality 	2019, 2021-22
Graduate Teaching Assistant (Brown University)	2018 - 2020
<ul style="list-style-type: none"> • PHYS 220 (Astronomy) • PHYS 270 (Astronomy & Astrophysics) 	
Undergraduate Teaching Assistant & Tutor (Colgate University)	2015 - 2016
<ul style="list-style-type: none"> • ASTR 101 (Solar System Astronomy) • ASTR 102 (Stars, Galaxies & the Universe) 	

- PHYS 111 (Fundamental Physics I)

Research Mentoring

- Tammi Chowdhury, PhD student at the University of Manitoba 2024 - Present
- Keyer Thyme, postbac student at the University of Chicago 2023 - 2024
Now a PhD student at Johns Hopkins University
- Tatsuya Daniel, PhD student at Brown University 2023 - 2024
Now a postdoc at McGill University.
- Christian Capanelli, PhD student at McGill University 2022 - 2023

Diversity, Inclusion, and Equity

- Brown Graduate Women in Physics (Co-Leader) 2019 - 2022
- CUWiP National Conference Panel Moderator 2022
- Brown CUWiP Organizing Committee 2020 - 2022
- Brown Physics Department Diversity and Inclusion Committee 2019 - 2021
- APS IDEA Participant 2020
- Colgate Women in Physics Club (Founder) 2015 - 2017

Service

Departmental

- Co-organizer of KICP seminar series 2023 - 2024
- Organizer of KICP particle cosmology journal club 2022 - 2025
- Co-organizer of KICP Funch journal club 2022-2023

Professional

- Main organizer for “Fundamental Physics Across the Gravitational Wave Spectrum” Workshop 2025
- Organizing Committee for TeVPA 2024
- Organizing Committee for Midwest Relativity Meeting 2023
- Subject matter expert reviewer in NASA peer review 2022
- Referee for *PRL*, *PRD*, *JCAP*, *Physics Letters B*, *EPL* 2021-Present

Outreach

- Adler Planetarium “Astronomy Conversations” Volunteer 2024-2025
- NeXXus invited guest speaker April 2023
- UIC Physics & Astronomy Club invited guest speaker April 2023
- Lifelong Learning guest speaker March 2023
- ‘Weekly Space Hangout’ Early Career Journalist 2022- 2023
- “Skype a Scientist” scientist volunteer 2020

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- Physics Graduate Student Mentor 2019 - 2022
 - Presidential Scholars Graduate Student Mentor 2018 - 2019
 - Providence Waterfire Big Bang Science Fair September 2018, 2019
 - Ho-Tung Visualiztion Lab Science Outreach Educator 2014 - 2016

Affiliations

- American Physical Society (APS)