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Academic appointments

University of Notre Dame, 2022–

John Cardinal O'Hara Professor of Logic, Department of Philosophy
Concurrent Professor of Mathematics, Department of Mathematics

University of Oxford, 2018–2024

Professor of Logic, 2018–2022, Faculty of Philosophy, University of Oxford
Sir Peter Strawson Fellow in Philosophy, 2018–2022, University College, Oxford
Praelector in Philosophy, 2018–2022, University College, Oxford
Affiliated Faculty, 2018–2022, Mathematical Institute, University of Oxford
Associate Faculty Member 2023–2024, Mathematical Institute, University of Oxford
Associate Faculty Member, 2022–2024, Faculty of Philosophy, University of Oxford

The City University of New York, 1995–2021, with various leaves

The Graduate Center of CUNY

Doctoral Faculty in Philosophy since 2013

Doctoral Faculty in Computer Science since 2002

Doctoral Faculty in Mathematics since 1997

College of Staten Island of CUNY, Mathematics

Distinguished Professor 2020, Full Professor since 2003, tenure granted 2000

Associate Professor 1999-2002, Assistant Professor 1995-1998

IUSS Scuola Universitaria Superiore Pavia, Italy, Visiting Scholar, September 2022

Isaac Newton Institute of Mathematical Sciences, Cambridge, U.K.

Visiting Fellow, August–October, 2015

Visiting Fellow, March–April, June, 2012

New York University

Visiting Professor of Philosophy, January–June, 2015

Visiting Professor of Philosophy, July–December, 2011

Fields Institute, University of Toronto

Scientific Researcher, August, 2012

University of Vienna, Kurt Gödel Research Center, Guest Professor, June, 2009

Universiteit van Amsterdam, Institute for Logic, Language & Computation

Visiting Professor, April–August 2007

NWO Bezoekersbeurs visiting researcher, June–August 2005, June 2006

Universität Münster, Institut für mathematische Logik, Germany

Mercator-Gastprofessor, DFG, May–August 2004

Georgia State University, Associate Professor Mathematics and Statistics, 2002-2003

Carnegie Mellon University, Visiting Associate Professor of Mathematics, 2000-2001

Kobe University Graduate School of Science & Technology, Japan

JSPS Research Fellow, January–December 1998

University of California at Berkeley

Visiting Assistant Professor of Mathematics, 1994-1995

Academic credentials

Ph.D. in Mathematics, May 1994, University of California, Berkeley
C.Phil. in Mathematics, December 1991, University of California, Berkeley
B.S. in Mathematics, May 1988, California Institute of Technology
M.A. (by resolution), September 2018, University of Oxford

Areas of specialization

Logic and the philosophy of mathematics, including mathematical and philosophical logic, the philosophy of set theory, the philosophy of computability, infinitary computability, the logic of games, infinitary game theory, modal logic, mereology, potentialism, set theory, categoricity, definability, strong axioms of infinity, and infinitary utilitarianism.

Books

- [1] Joel David Hamkins. *Lectures on the Philosophy of Mathematics*. MIT Press, 2021. ISBN: 9780262542234. <https://mitpress.mit.edu/books/lectures-philosophy-mathematics>.
- [2] Joel David Hamkins. *Proof and the Art of Mathematics: Examples and Extensions*. MIT Press, 2021. ISBN: 9780262542203. <https://mitpress.mit.edu/books/proof-and-art-mathematics-1>.
- [3] Joel David Hamkins. *Proof and the Art of Mathematics*. MIT Press, 2020. ISBN: 978-0-262-53979-1. <https://mitpress.mit.edu/books/proof-and-art-mathematics>.

Edited volume

- [4] N. Greenberg, J. D. Hamkins, D. R. Hirschfeldt, and R. G. Miller, eds. *Effective Mathematics of the Uncountable*. Vol. 41. Cambridge University Press, ASL Lecture Notes in Logic, 2013. ISBN: 9781107014510. <http://wp.me/s5M0LV-emu>.

Books in preparation

- [5] Joel David Hamkins. *Infinite Games, Frivolities of the Gods*. book in preparation. 2024.
- [6] Joel David Hamkins. *A Panorama of Logic*. manuscript in preparation, currently 425 pages, being serialized on <https://www.infinitelymore.xyz/s/panorama-of-logic>. 2023.
- [7] Joel David Hamkins. *The Book of Infinity*. manuscript in preparation, currently 438 pages, being serialized on <https://www.infinitelymore.xyz/s/book-of-infinity>. 2023.

Published articles

- [8] Joel David Hamkins. “Fregean abstraction in Zermelo-Fraenkel set theory: a deflationary account”. *Annals of Mathematics and Philosophy* (2024). to appear. arXiv:2209.07845. <http://jdh.hamkins.org/fregean-abstraction-deflationary-account>.
- [9] Joel David Hamkins and Wojciech Aleksander Wołoszyn. “Modal model theory”. *Notre Dame Journal of Formal Logic* (2024). to appear. arXiv:2009.09394.
- [10] Joel David Hamkins. “Infinite Wordle and the mastermind numbers”. *Mathematics Logic Quarterly* (2023). DOI: 10.1002/malq.202200049. arXiv:2203.06804. <http://jdh.hamkins.org/infinite-wordle-mastermind>.
- [11] Joel David Hamkins. “Self-similar self similarity”. In: *The Language of Symmetry*. Ed. by Benedict Rattigan, Denis Noble, and Afiq Hatta. Chapman and Hall/CRC, 2023. Chap. 4, pp. 37–50. ISBN: 9781032308494.
- [12] Joel David Hamkins and Davide Leonessi. “Infinite Hex is a draw”. *Integers* 23 (2023). Games Section, paper G6, <http://math.colgate.edu/~integers/xg6/xg6.pdf>. DOI: 10.5281/zenodo.10075843. arXiv:2201.06475. <http://jdh.hamkins.org/infinite-hex-is-a-draw>.
- [13] Joel David Hamkins and Bokai Yao. “Reflection in second-order set theory with abundant urelements bi-interprets a supercompact cardinal”. *Journal of Symbolic Logic* (2023). to appear. arXiv:2204.09766. <http://jdh.hamkins.org/second-order-reflection-with-abundant-urelements>.
- [14] Raffaella Cutolo and Joel David Hamkins. “Choiceless large cardinals and set-theoretic potentialism”. *Mathematical Logic Quarterly* 68.4 (2022), pp. 409–415. arXiv:2007.01690. <http://jdh.hamkins.org/choiceless-large-cardinals-and-set-theoretic-potentialism>.
- [15] Ali Enayat, Joel David Hamkins, and Bartosz Wcisło. “Topological models of arithmetic”. *Fund. Math.* 256.2 (2022), pp. 171–193. ISSN: 0016-2736. DOI: 10.4064/fm928-1-2021. arXiv:1808.01270. <http://wp.me/p5M0LV-1LS>.
- [16] Joel David Hamkins and Davide Leonessi. “Transfinite game values in infinite draughts”. *Integers* 22 (2022). Paper G5, <http://math.colgate.edu/~integers/wg5/wg5.pdf>. arXiv:2111.02053. <http://jdh.hamkins.org/transfinite-game-values-in-infinite-draughts>.
- [17] Joel David Hamkins and Øystein Linnebo. “The modal logic of set-theoretic potentialism and the potentialist maximality principles”. *Review of Symbolic Logic* 15.1 (2022), pp. 1–35. ISSN: 1755-0203. DOI: 10.1017/S1755020318000242. arXiv:1708.01644. <http://wp.me/p5M0LV-1zC>.
- [18] Alfredo Roque Freire and Joel David Hamkins. “Bi-interpretation in weak set theories”. *Journal of Symbolic Logic* 86.2 (2021), pp. 609–634. DOI: 10.1017/jsl.2020.72. arXiv:2001.05262. <http://jdh.hamkins.org/bi-interpretation-in-weak-set-theories>.
- [19] Victoria Gitman, Joel David Hamkins, and Asaf Karagila. “Kelley-Morse set theory does not prove the class Fodor theorem”. *Fundamenta Mathematicae* 254.2 (2021), pp. 133–154. ISSN: 0016-2736. DOI: 10.4064/fm725-9-2020. arXiv:1904.04190. <http://wp.me/p5M0LV-1RD>.
- [20] Joel David Hamkins and Kameryn J. Williams. “The Σ_1 -definable universal finite sequence”. *Journal of Symbolic Logic* (2021). DOI: 10.1017/jsl.2020.59. arXiv:1909.09100.

- [21] Neil Barton, Andrés Eduardo Caicedo, Gunter Fuchs, Joel David Hamkins, Jonas Reitz, and Ralf Schindler. “Inner-model reflection principles”. *Studia Logica* 108 (2020), pp. 573–595. DOI: 10.1007/s11225-019-09860-7. arXiv:1708.06669. <http://jdh.hamkins.org/inner-model-reflection-principles>.
- [22] D. Dakota Blair, Joel David Hamkins, and Kevin O’Byrant. “Representing Ordinal Numbers with Arithmetically Interesting Sets of Real Numbers”. *Integers* 20A (2020). Paper A3, <http://math.colgate.edu/~integers/vol20a.html>. arXiv:1905.13123. <https://wp.me/p5M0LV-1Tg>.
- [23] Andreas Blass, Jörg Brendle, Will Brian, Joel David Hamkins, Michael Hardy, and Paul B. Larson. “The rearrangement number”. *Trans. Amer. Math. Soc.* 373.1 (2020), pp. 41–69. ISSN: 0002-9947. DOI: 10.1090/tran/7881. arXiv:1612.07830. <http://jdh.hamkins.org/the-rearrangement-number>.
- [24] Victoria Gitman, Joel David Hamkins, Peter Holy, Philipp Schlicht, and Kameryn Williams. “The exact strength of the class forcing theorem”. *Journal of Symbolic Logic* 85.3 (2020), 869–905. DOI: 10.1017/jsl.2019.89. arXiv:1707.03700. <http://wp.me/p5M0LV-1yp>.
- [25] Jörg Brendle, Will Brian, and Joel David Hamkins. “The subseries number”. *Fund. Math.* 247.1 (2019), pp. 49–85. ISSN: 0016-2736. DOI: 10.4064/fm667-11-2018. arXiv:1801.06206. <http://jdh.hamkins.org/the-subseries-number>.
- [26] François G. Dorais and Joel David Hamkins. “When does every definable nonempty set have a definable element?” *Mathematical Logic Quarterly* 65.4 (2019), pp. 407–411. DOI: 10.1002/malq.201700035. arXiv:1706.07285. <http://jdh.hamkins.org/definable-sets-with-definable-elements>.
- [27] Marcia J. Groszek and Joel David Hamkins. “The implicitly constructible universe”. *Journal of Symbolic Logic* 84.4 (2019), pp. 1403–1421. ISSN: 0022-4812. DOI: 10.1017/jsl.2018.57. arXiv:1702.07947. <http://jdh.hamkins.org/the-implicitly-constructible-universe>.
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- [30] Gunter Fuchs, Victoria Gitman, and Joel David Hamkins. “Ehrenfeucht’s Lemma in Set Theory”. *Notre Dame Journal of Formal Logic* 59.3 (2018), pp. 355–370. DOI: 10.1215/00294527-2018-0007. arXiv:1501.01918. <http://jdh.hamkins.org/ehrenfeuchts-lemma-in-set-theory>.
- [31] Victoria Gitman and Joel David Hamkins. “A model of the generic Vopěnka principle in which the ordinals are not Mahlo”. *Archive for Mathematical Logic* (May 2018), pp. 1–21. ISSN: 0933-5846. DOI: 10.1007/s00153-018-0632-5. arXiv:1706.00843. <http://wp.me/p5M0LV-1xT>.
- [32] C. D. A. Evans, Joel David Hamkins, and Norman Lewis Perlmutter. “A position in infinite chess with game value ω^4 ”. *Integers* 17 (2017), Paper No. G4, 22. arXiv:1510.08155. <http://wp.me/p5M0LV-1c5>.

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- [34] Michał Tomasz Godziszewski and Joel David Hamkins. “Computable Quotient Presentations of Models of Arithmetic and Set Theory”. In: *Logic, Language, Information, and Computation: 24th International Workshop, WoLLIC 2017, London, UK, July 18-21, 2017, Proceedings*. Ed. by Juliette Kennedy and Ruy J.G.B. de Queiroz. Springer, 2017, pp. 140–152. ISBN: 978-3-662-55386-2. DOI: 10.1007/978-3-662-55386-2_10. arXiv:1702.08350. <http://wp.me/p5M0LV-1tW>.
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- [37] Victoria Gitman and Joel David Hamkins. “Open determinacy for class games”. In: *Foundations of Mathematics, Logic at Harvard, Essays in Honor of Hugh Woodin’s 60th Birthday*. Ed. by Andrés E. Caicedo, James Cummings, Peter Koellner, and Paul Larson. AMS Contemporary Mathematics. Newton Institute preprint ni15064. 2016. arXiv:1509.01099. <http://wp.me/p5M0LV-1af>.
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- [47] Ali Sadegh Daghighi, Mohammad Golshani, Joel David Hamkins, and Emil Jeřábek. “The foundation axiom and elementary self-embeddings of the universe”. In: *Infinity, Computability, and Metamathematics: Festschrift celebrating the 60th birthdays of Peter Koepke and Philip Welch*. Ed. by S. Geschke, B. Löwe, and P. Schlicht. Vol. 23. Tributes. College Publishers, 2014, pp. 89–112. arXiv:1311.0814. <http://jdh.hamkins.org/the-role-of-foundation-in-the-kunen-inconsistency/>.
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- [55] Joel David Hamkins and Benedikt Löwe. “Moving up and down in the generic multiverse”. *Logic and its Applications, ICLA 2013 LNCS 7750* (2013). Ed. by Kamal Lodaya, pp. 139–147. DOI: 10.1007/978-3-642-36039-8_13. arXiv:1208.5061. <http://wp.me/p5M0LV-od>.
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Collaboration and mentoring

In the graph of research collaboration in logic, I find myself serving as a vertex of connectivity, with over 50 research collaborators coming from essentially all parts of mathematical and philosophical logic and beyond. I have forged collaborations drawing together researchers from distant research areas, spanning the range from established senior research colleagues to junior researchers, with whom I often take a mentorship role.

Google Scholar metrics

All data is available at my scholar.google.com profile.

Number of Citations: 3373

H-Index: 29

i10 Index: 81

Micropublishing and other online content

1. MathOverflow.net, a Q&A forum for advanced mathematics research. I am the leading contributor and top user by ‘reputation’ score, out of over 65,000 mathematicians on MathOverflow, a distinction I have held continuously since 2010. I have made over 1800 posts there, each a brief technical essay on a graduate-research-level topic, mostly logic, and these have been cited in dozens of instances in the regularly published research literature. My MathOverflow contributions have reportedly reached 4.6 million people.
2. My substack: Infinitely More. Over 2500 subscribers. I am serializing the chapters of my books-in-progress, *The Book of Infinity* and *A Panorama of Logic*, releasing them weekly online. About 200K views since January 2023.
3. My blog: Mathematics and Philosophy of the infinite. I have written several hundred research-level expository posts on diverse topics in logic, philosophy, and mathematics. My Math for Kids series, describing fun mathematical activities for children, has proved extremely popular, sometimes breaking into tens of thousands of views in the first few days of a new post and several times making it to the front pages of Reddit and Hacker News. Several of my most popular posts have been translated into French, Italian, Slovenian, and Mandarin.
4. My YouTube channel. I post videos of lectures and talks and other philosophical and mathematical content, 3500 subscribers. My recent lecture series on the philosophy of mathematics had over 10,000 total hours of viewing time, with 75,000 views.
5. One of my epistemic logic puzzles was the central focus of a popular video by Presh Talwalkar, Mind Your Decisions, “Solve this logic puzzle to get into Oxford,” with over 3 million views for this one logic puzzle and over 7000 comments, <https://youtu.be/PVFWUGE6mBU>.
6. The same puzzle along with several others was the main focus of the article “Can you solve it? Oxford University admissions questions, Brainteasers for budding philosophers,” by Alex Bellos in The Guardian, 12 July 2021. <https://www.theguardian.com/science/2021/jul/12/can-you-solve-it-oxford-university-admissions-questions>
7. I co-wrote the lyrics to “Ode to Hippasus,” (with Barbara Montero and Hypatia Hamkins) a song providing a proof of the irrationality of $\sqrt{2}$, made into a music video by Hannah Hoffman, available at <https://youtu.be/DGIA2U2iPCk>. In a followup project with Hoffman, I wrote the lyrics to “Plenitudinous Primes,” a song giving the Euclidean proof of the infinitude of primes, <https://youtu.be/WEyEpwAeaaI>.
8. My work on infinite chess was the basis for the PBS Infinite Series video, “Infinite Chess,” March 2017, with over 350,000 views and over 1000 lively mathematical/chess comments posted on this particular video. <https://youtu.be/PN-I6u-AxMg>
9. See also my popular logic, math and philosophy posts on Twitter: @JDHamkins, over 20,000 followers.

Philosophical interviews

1. Interviewed by Rahul Sam, “The Gödel incompleteness phenomenon,” a sweeping discussion of the philosophy of mathematics, 13 January 2024, https://youtu.be/7Mhioir_Ic
2. Interviewed by Matthew Geleta, “Philosophy of mathematics and truth,” Paradigm Podcast, 23 August 2023, <https://youtu.be/563qSYUByak>.
3. Interviewed by Richard Fisher of the BBC for the article, “The numbers that are too big to imagine,” BBC Future, Immensities Mathematics series, 20 March 2023, <https://www.bbc.com/future/article/20230320-the-numbers-that-are-too-big-to-imagine>
4. Interviewed by Lluís Amigué, “La inteligencia artificial es imperfecta; la humana, también,” back cover interview for La VanGuardia, 22 March 2023, <https://www.lavanguardia.com/lacontra/20230322/8842770/inteligencia-artificial-imperfecta-humana.amp.html>
5. Interviewed, with Graham Priest, by Robinson Erhardt (a second time) for the podcast, “Joel David Hamkins & Graham Priest: The Liar Paradox & The Set-Theoretic Multiverse | RP #60, 9 March 2023. <https://youtu.be/8LHeOK3Etik>
6. Interviewed by Robinson Erhardt for the podcast, “Paradox, Infinity, & The Foundations of Mathematics | RP #42,” 9 January 2023. <https://youtu.be/zEdQbMziYfE>
7. Interviewed by Nathan Ormond for *Digital Gnosis*, “Frege’s philosophy of mathematics,” 10 December 2021. <https://youtu.be/jIwm0XnqbNI>
8. Interviewed by Evelyn Lamb and Kevin Knudson for their podcast series *My Favorite Theorem*, 22 September 2021, <https://kpknudson.com/my-favorite-theorem/2021/9/22/episode-70-joel-david-hamkins>.
9. Interviewed by Daniel Rubin, “Infinite sets and foundations,” 26 August 2021 <https://youtu.be/acjJ5-OSuZM>.
10. Interviewed by Theodor Nenu for *Philosophical Trials (#1)*, “Joel David Hamkins on Infinity, Gödel’s Theorems and Set Theory,” April 2, 2020. <https://youtu.be/Z1A6BENfS-o>
11. Interviewed by Richard Marshall for 3:AM Magazine, “Playing Infinite Chess,” March 25, 2013. <https://www.3-16am.co.uk/articles/playing-infinite-chess>

Selected recent invited conference and colloquia talks

1. “What is second-order predicate modal logic?” First-order Modal Logic (FoMoLo) Seminar, 12 February 2024.
2. “Pluralism in the foundations of mathematics,” invited ASL talk, APA Eastern Division meeting, New York, 16 January 2024.
3. “The computable model theory of forcing,” Rutgers Logic Seminar, 4 December 2023.

4. “The Wordle and Absurdle numbers,” CUNY Logic Workshop, 17 November 2023.
5. “An exploration of infinite games—infinite Wordle and the Mastermind numbers,” Harvard University, 16 October 2023.
6. “The surprising strength of second-order reflection in urelement set theory,” XVII International Luminy Workshop in Set Theory, October 2023.
7. “What is potentialist second-order logic?” Konstanz Actualism and Potentialism Conference, 28–29 September 2023.
8. “Introduction to infinite games,” Infinite-games Workshop, 5 October 2023.
9. “A deflationary account of Fregean abstraction in set theory, with Basic Law V as a ZFC theorem,” Axe Histoire et Philosophie des mathématiques, Séminaire PhilMath Intersem 2023, Paris, June 2023.
10. “Infinite games—strategies, logic, theory, and computation,” Northeastern University, Boston Computation Club, June 2023.
11. “Natural Instances of Illfoundedness and Nonlinearity in the Hierarchy of Consistency Strength,” Oxford Philosophy of Mathematics Seminar, May 2023.
12. “How to find pointwise definable and Leibnizian extensions of models of arithmetic and set theory,” Oxford Logic Seminar, May 2023.
13. “Realizing Frege’s Basic Law V provably in ZFC,” CUNY Set Theory Seminar, May 2023.
14. “Set-theoretic forcing as a computational process,” Midwest Computability Seminar, Chicago, May 2023.
15. “Varieties of potentialism,” Oslo, Infinity and Intensionality Project, April 2023.
16. “Natures of Proof,” Pacific APA, Commentator at Book Symposium, San Francisco, April 2023.
17. “Pointwise definable and Leibnizian extensions of models of arithmetic and set theory,” Madison Logic Seminar, April 2023.
18. “The Math Tea argument: must there be numbers we can neither describe nor define?” Barcelona March 2023
19. “Strategic thinking in infinite games,” CosmoCaixa Science Museum, Barcelona, March 2023. This is part of their “The Greats of Science” talk series, which has included Jane Goodall and about a dozen Nobel prize winners.
20. “A survey of set-theoretic geology,” Notre Dame Logic Seminar, January 2023
21. “Pointwise definable and Leibnizian extensions of models of arithmetic and set theory,” MOPA seminar CUNY, November 2022

22. "Pointwise definable and Leibnizian models of arithmetic and set theory, realized in end extensions of a given model," Notre Dame Logic Seminar, October 2022
23. "Fregean abstraction in set theory—a deflationary account," Italian Philosophy of Mathematics conference, Pavia, Italy, September 2022
24. "The math tea argument—must there be numbers we cannot describe or define?" Pavia Logic Seminar, IUSS, September 2022.
25. "Masterclass of The set-theoretic multiverse," Workshop on the Set-theoretic Multiverse, Konstanz, Germany, September 2022
26. "Nonlinearity and illfoundedness in the hierarchy of consistency strength and the question of naturality," Italian Association for Logic and its Applications (AILA), Caserta, Italy, September 2022
27. "Pointwise definable end-extensions of the universe," Salzburg Conference for Young Analytical Philosophy, SOPhiA, Salzburg, Austria, September 2022
28. "Set theory inside out: realizing every inner model theory in an end extension," European Set Theory Conference, Torino, Italy, September 2022
29. "The ontology of mathematics," Japan Association for the Philosophy of Science, Tokyo, Japan, June 2022
30. "Infinite Games, Frivolities of the Gods," Logic at Large Lecture, Dutch Association for Logic and Philosophy of the Exact Sciences, Amsterdam, May 2022
31. "The surprising strength of reflection in second-order set theory with abundant urelements," CUNY Set Theory seminar, New York, April 2022
32. "Pluralism in the ontology of mathematics," L'indépendance mathématique et ses limites logiques, MaMuPhi seminar (mathématiques – musique – philosophie), Paris, February 2022
33. "The model theory of set-theoretic mereology," Notre Dame Math Logic Seminar, February 2022
34. "Bi-interpretation in set theory," Oberwolfach Set Theory Conference, Germany, January 2022
35. "Frege's philosophy of mathematics," Interview with Nathan Ormond, *Digital Gnosis*, December 2021
36. "The surprising strength of reflection in second-order set theory with abundant urelements," Workshop on the Philosophy of Set Theory, University of Konstanz, Germany, 3–4 December 2021
37. "Infinite draughts and the logic of infinitary games," University of Oslo, Seminar on Mathematical Logic, 11 November 2021
38. "A deflationary account of Fregean abstraction in Zermelo-Fraenkel ZF set theory," University of Oxford, Seminar on the Philosophy of Mathematics, 1 November 2021

39. “The Tennenbaum phenomenon for computable quotient presentations of models of arithmetic and set theory,” Fudan University, Conference on Model Theory and Philosophy of Mathematics, Shanghai, 21–24 August 2021
40. “Naturality in mathematics and the hierarchy of consistency strength,” Logik Kolloquium at the University of Konstanz, 19 July 2021
41. “Categorical set theories,” Seminar for Logic and Philosophy of Language, Munich Center for Mathematical Philosophy, 24 June 2021
42. “Potentialism and implicit actualism in the foundations of mathematics,” University of Notre Dame, Philosophy Department Colloquium, 26 March 2021
43. Discussion of *Lectures on the Philosophy of Mathematics*, a presentation and discussion of my book for the Philosophy of Mathematics Reading Group at University of Amsterdam ILLC, 19 March 2021
44. “Determinacy for proper class games,” Seminaire de Logique Lyon-Paris, 14 April 2021
45. “Can there be natural instances of nonlinearity in the hierarchy of consistency strength?” University of Wisconsin, Madison Logic Seminar, 25 January 2021
46. “Definability and the Math Tea argument: must there be numbers we cannot describe or define?” University of Warsaw, 22 January 2021
47. “Continuous models of arithmetic,” Models of Peano Arithmetic MOPA seminar, City University of New York, 11 November 2020
48. “Set-theoretic and arithmetic potentialism: the state of current developments,” Chinese Annual Conference on Mathematical Logic (CACML 2020), Nankai University, 13–15 November 2020
49. “A new proof of the Barwise extension theorem, and the universal finite sequence,” Barcelona Set Theory Seminar, 28 October 2020
50. “Modal model theory as mathematical potentialism,” Oslo online Potentialism Workshop, 21 September 2020
51. “Categorical cardinals,” CUNY Set Theory Seminar, 26 June 2020
52. “The theory of infinite games, including infinite chess,” Talk Math With Your Friends seminar, 18 June 2020
53. “Bi-interpretation of weak set theories,” Oxford Set Theory Seminar, 20 May 2020
54. “Bi-interpretation of weak set theories,” Oberwolfach Mathematics Institute, 5–11 April 2020. (Cancelled on account of Covid-19)
55. “Bi-interpretation in set theory,” Logic and Set Theory Seminar, University of Bristol, 25 February 2020.

56. "Philosophy meets maths," Oxford Philosophy Taster, 10 January 2020.
57. "Modal model theory," Set-theory in the United Kingdom (STUK 4), Oxford, 14 December 2019.
58. "I know that you know that I know that you know. . .," Oxford Philosophy Faculty, welcome talk for new students, 16 October 2019.
59. "Can set-theoretic mereology serve as a foundation of mathematics?" Plenary talk, 16th International Congress of Logic, Methodology and Philosophy of Science and Technology, CLMPST 2019, Prague.
60. "Alan Turing's theory of computation," Oxford and Cambridge Club, London, 6 June 2019.
61. "Computational self-reference and the universal algorithm," Theory Seminar, research group in Theoretic Computer Science, Queen Mary University of London, 4 June 2019.
62. "Is there just one mathematical universe?" Wijsgerig Festival *Ontology*, DRIFT 2019, Amsterdam, 11 May 2019.
63. "The modal logic of potentialism," Institute of Logic, Language and Computation, University of Amsterdam, 11 May 2019.
64. "Kelley-Morse set theory does not prove the class Fodor Principle," CUNY Set Theory Seminar, 22 March 2019.
65. "Forcing as a computational process," Set Theory in the United Kingdom (STUK 1), Cambridge, 16 February 2019.
66. "Potentialism and implicit actualism in the foundations of mathematics," Jowett Society lecture, Oxford Faculty of Philosophy, 8 February 2019.
67. "An infinitary-logic-free proof of the Barwise end-extension theorem, with new applications," Logic Oberseminar, Logic Institute, University of Münster, 11 January 2019.
68. "A new proof of the Barwise extension theorem, without infinitary logic," CUNY Logic Workshop, 15 December 2018.
69. Faculty respondent to paper of Ethan Jerzak on Paradoxical Desires, Oxford Graduate Philosophy Conference, 10 November 2018, University of Oxford.
70. "On set-theoretic mereology as a foundation of mathematics," Oxford Phil Math seminar, 29 October 2018, University of Oxford.
71. "The rearrangement number: how many rearrangements of a series suffice to validate absolute convergence?" Warwick Mathematics Colloquium, 19 October 2018, University of Warwick.
72. "Parallels in universality between the universal algorithm and the universal finite set," Oxford Math Logic Seminar, 9 October 2018, University of Oxford.
73. "Set-theoretic potentialism and the universal finite set," Scandinavian Logic Symposium SLS 2018, June 11-13, 2018, University of Gothenburg, Sweden.

74. "Determinacy for open class games is preserved by forcing," CUNY Set Theory Seminar, April 27, 2018, CUNY Graduate Center, New York.
75. "The universal finite set," Rutgers Logic Seminar, April 2, 2018, Rutgers University, New Jersey.
76. "Nonamalgamation in the Cohen generic multiverse," CUNY Logic Workshop, March 23, 2018, CUNY Graduate Center, New York.
77. "Self reference in computability theory and the universal algorithm," Ouroboros: Formal Criteria of Self-Reference in Mathematics and Philosophy, February 16-18, 2018, Universität Bonn, Germany.
78. "Modal principles of potentialism," Faculty of Philosophy, January 29, 2018, Oxford University, Oxford, U.K.
79. "Set-theoretic potentialism," Invited lecture series at Winter School in Abstract Analysis, January 27-February 3, 2018, Hejnice, Czech Republic.
80. "The universal algorithm and the universal finite set," Prague Gathering of Logicians & The Beauty of Logic conference, January 25-27, 2018, Prague, Czech Republic.
81. "On the strengths of the class forcing theorem and clopen class game determinacy," Prague set theory seminar, January 2018, Prague Academy of Sciences, Czech Republic.

Conference and seminar organizing

At Notre Dame, in Fall 2023 I founded the new Infinite-Games Workshop, a seminar series exploring topics in the theory of infinite games. Talks are available on YouTube.

In Oxford, I founded the Oxford Set Theory Seminar, running since Trinity Term 2020, in which we hosted distinguished speakers in set theory and the philosophy of set theory, with participants joining online from all around the world. I was also the principal organizer for the Set Theory in the UK conference held in Oxford in December, 2019.

In New York, I was a principal force behind various research activities that had helped to establish the City University of New York as a vibrant center of research in logic. I was a founding co-organizer of the weekly CUNY Logic Workshop, which has run continuously for twenty five years and has become a focal point for researchers in mathematical logic in New York City, with a long list of distinguished speakers. I also founded the CUNY Set Theory Seminar, running now also for over twenty years, also with many distinguished speakers. In addition, I have organized or co-organized numerous conferences at CUNY, including the NYC Logic Conference series, several MAMLS meetings and conferences on the Effective Mathematics of the Uncountable. I have also served as advisor for the several New York Graduate Student Logic Conferences.

Graduate student supervision

I have served or am currently serving (o) as PhD dissertation supervisor for the following students:

- o Hans Robin Solberg, Philosophy, Oxford University (co-supervisor)
- o Clara Elizabeth List, Mathematics, University of Hamburg (co-supervisor)
- o Emma Palmer, Mathematics, Oxford University
- o Wojciech Aleksander Wołoszyn, Mathematics, Oxford University
- Nuno Felipe Maia, D Phil 2023, Philosophy, Oxford University
- Sam Adam-Day, D Phil 2023, Mathematics, Oxford University
- Bokai Yao, Ph.D. 2023, Philosophy, University of Notre Dame
- Corey Bacal Switzer, Ph.D. 2020, Mathematics, CUNY Graduate Center
- Kameryn Williams, Ph.D. 2018, Mathematics, CUNY Graduate Center
- Miha Habič, Ph.D. 2017, Mathematics, CUNY Graduate Center
- Erin Carmody, Ph.D. 2015, Mathematics, CUNY Graduate Center
- Norman Perlmutter, Ph.D. 2013, Mathematics, CUNY Graduate Center
- Brent Cody, Ph.D. 2012, Mathematics, CUNY Graduate Center
- Jason Schanker, Ph.D. 2011, Mathematics, CUNY Graduate Center
- Thomas Johnstone, Ph.D. 2007, Mathematics, CUNY Graduate Center
- Victoria Gitman, Ph.D. 2007, Mathematics, CUNY Graduate Center
- Jonas Reitz, Ph.D. 2006, Mathematics, CUNY Graduate Center
- George Liebman, Ph.D. 2004, Mathematics, CUNY Graduate Center

Master's Thesis Supervisor of:

- Quincy Montgomery Crawford Iv, Philosophy BPhil 2023, Oxford University
- Davide Leonessi, MSc 2021, MFoCS, Oxford University
- Clara List, MSc 2020, MFoCS, Oxford University
- Ansten Morch-Klev, M.S. 2007, Universiteit van Amsterdam, Institute for Logic, Language and Computation

Thesis Committee member for:

- Paul Gorbow, Ph.D. 2018, University of Gothenburg, Sweden
- Kaethe Minden, Ph.D. 2017, CUNY Graduate Center
- Regula Krapf, Ph.D. 2017, University of Bonn
- Giorgio Audrito, Ph.D. 2016, University of Torino (I was president of the thesis committee)
- Kostas Tsaprounis, Ph.D. 2012, University of Barcelona
- Shoshana Friedman, Ph.D. 2010, CUNY Graduate Center
- Paul Ellis, Ph.D. 2009, Rutgers University
- Scott Schneider, Ph.D. 2009, Rutgers University
- Sam Coskey, Ph.D. 2008, Rutgers University
- Joost Winter, M.S. 2007, Universiteit van Amsterdam

- Can Baskent, M.S. 2007, Universiteit van Amsterdam
- Yurii Khomskii, M.S. 2007, Universiteit van Amsterdam
- Erez Shochat, Ph.D. 2006, CUNY Graduate Center
- Ivan Welty, Ph.D. 2006, Philosophy, Columbia University
- Sidney Raffer, Ph.D. 1999, CUNY Graduate Center