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PHILPAPERS 📄

RICHARD ZACH

Education PhD, **University of California, Berkeley**, Logic and the Methodology of Science, 2001
 (Thesis: “Hilberts Finitism: Historical, Philosophical, and Metamathematical
 Perspectives.” Supervisors: Paolo Mancosu, Jack H. Silver)
 MA, **University of California, Berkeley**, Mathematics, 1997
 CPhil, **University of California, Berkeley**, Logic and the Methodology of Science, 1997
 Diplom-Ingenieur, **Technische Universität Wien**, Computational Logic, 1993

Areas of Logic: Proof Theory, Non-classical Logics
Specialization History of Logic: Hilbert, Gödel, Carnap
 Philosophy of Mathematics: Hilbert’s Program
 History of Analytic Philosophy: Carnap

Areas of Metaphysics, Philosophy of Language, Philosophy of Science
Competence

Appointments *University of Calgary, Department of Philosophy*

Professor, 2009–.

Associate Professor, 2004–2009.

Assistant Professor, 2001–2004.

Université Paris 1 Panthéon-Sorbonne

Professeur invité, 2023.

Technische Universität Wien, Department of Computer Science

Visiting Researcher, 2022.

Erasmus Mundus Scholar, 2009.

Lecturer, 1995–2000.

McGill University, Department of Philosophy

Visiting Professor, 2014–2015.

University of California, Irvine, Department of Logic and Philosophy of Science

Visiting Associate Researcher, 2004.

Stanford University, Department of Philosophy

Lecturer, 2001.

University of California, Berkeley, Department of Philosophy

Graduate Student Instructor, 1996–2000.

Awards Shoenfield Prize, Association for Symbolic Logic, 2022.
 Bulletin of Symbolic Logic 25th Anniversary Prize, Association for Symbolic Logic, 2021.
 Annual Fellowship, Calgary Institute for the Humanities, 2013–2014.
 Annual Fellowship, Calgary Institute for the Humanities, 2006–2007.
 Visiting Fellowship, Department of Logic and Philosophy of Science, University of California, Irvine, 2004.
 Canadian Hunter Young Innovator Award, University of Calgary, 2003.
 Mabelle McLeod Lewis Memorial Fellowship, 1999–2000.
 The Berkeley Fellowship for Graduate Study, University of California, Berkeley, 1994–1999.
 Kurt Gödel Fellowship for Study Abroad, Austrian Ministry of Science, 1994–1995.

Editor *Philosophia Mathematica*, Editor, 2019–.
Stanford Encyclopedia of Philosophy, Subject Editor, History of Logic, 2005–.
Journal for the History of Analytic Philosophy, Founding Editor, 2010–2020.
The Review of Symbolic Logic, Founding Editor, 2007–2013.
Studia Logica, Associate Editor, 2006–2008.
Open Logic Project, Main Instigator, 2013–.
The Collected Works of Rudolf Carnap, Editor, 2006–.
Hilbert-Bernays Project, Advisory Board Member, 2008–.
Paul Bernays Project, Editorial Board Member, 2000–.

Publications *Books*

9. Mancosu, Paolo, Sergio Galvan, and Richard Zach (2022). *Introduction à la théorie de la démonstration: Élimination des coupures, normalisation et preuves de cohérence*. Paris: Vrin. 588 pp.
8. Magnus, P. D., Tim Button, J. Robert Loftis, Aaron Thomas-Bolduc, Robert Trueman, and Richard Zach (2021a). *Forall x: Calgary. An Introduction to Formal Logic*. F21. Calgary: Open Logic Project. [LINK](#). CITATIONS: 4
7. Magnus, P. D., Tim Button, J. Robert Loftis, Aaron Thomas-Bolduc, Robert Trueman, and Richard Zach (2021b). *Forall x: Dortmund. Eine Einführung in Die Formale Logik*. Trans. by Wimmer, Simon. Dortmund: Open Logic Project. [LINK](#).
6. Magnus, P. D., Tim Button, J. Robert Loftis, Aaron Thomas-Bolduc, Robert Trueman, and Richard Zach (2021c). *Para Todos Natal. Uma introdução à*

- lógica formal*. Trans. by Daniel Durante, Maria da Paz Nunes de Medeiros, and Ricardo Gentil de Araújo Pereira. Natal: Universidade Federal do Rio Grande do Norte. [LINK](#).
5. Mancosu, Paolo, Sergio Galvan, and Richard Zach (2021). *An Introduction to Proof Theory: Normalization, Cut-Elimination, and Consistency Proofs*. Oxford: Oxford University Press. DOI: [10.1093/oso/9780192895936.001.0001](https://doi.org/10.1093/oso/9780192895936.001.0001). CITATIONS: 30
 4. Zach, Richard (2021c). *Sets, Logic, Computation: An Open Introduction to Metalogic*. Calgary: Open Logic Project. [LINK](#).
 3. Zach, Richard (2020b). *What If?: An Open Introduction to Non-Classical Logics*. Calgary: Open Logic Project. [LINK](#).
 2. Zach, Richard (2019a). *Boxes and Diamonds: An Open Introduction to Modal Logic*. Calgary: Open Logic Project. [LINK](#).
 1. Zach, Richard (2019d). *Incompleteness and Computability. An Open Introduction to Gödel's Theorems*. Calgary: Open Logic Project. [LINK](#).

Editions

2. Carnap, Rudolf (2024). *Studies in Semantics*. Ed. by Steve Awodey and Greg Frost-Arnold. The Collected Works of Rudolf Carnap 7. With editorial assistance by Richard Zach. Oxford: Oxford University Press. Google Books: [f1z8EAAAQBAJ](https://books.google.com/books?id=f1z8EAAAQBAJ).
1. Carnap, Rudolf (2019a). *Early Writings*. Ed. by A. W. Carus, Michael Friedman, Wolfgang Kienzler, Alan Richardson, and Sven Schlotter. The Collected Works of Rudolf Carnap 1. With editorial assistance by Steve Awodey, Dirk Schlimm, and Richard Zach. Oxford: Oxford University Press. 516 pp. Google Books: [2CaeDwAAQBAJ](https://books.google.com/books?id=2CaeDwAAQBAJ). CITATIONS: 2

Journal Articles

26. Elkind, Landon D. C. and Richard Zach (2023). “The Genealogy of ‘ \vee ’”. *The Review of Symbolic Logic* **16**(3), 862–899. DOI: [10.1017/S1755020321000587](https://doi.org/10.1017/S1755020321000587). PHILPAPERS: ZACTG0-2. CITATIONS: 2
25. Zach, Richard (2023). “An Epimorphism between Fine and Ferguson’s Matrices for Angell’s AC”. *Logic and Logical Philosophy* **32**(2), 161–179. DOI: [10.12775/LLP.2022.025](https://doi.org/10.12775/LLP.2022.025). PHILPAPERS: ZACAHB.
24. Baaz, Matthias and Richard Zach (2022). “Epsilon Theorems in Intermediate Logics”. *The Journal of Symbolic Logic* **87**(2), 682–720. DOI: [10.1017/jsl.2021.103](https://doi.org/10.1017/jsl.2021.103). PHILPAPERS: BAAETI.

23. Burns, Samara and Richard Zach (2021). “Cut-Free Completeness for Modular Hypersequent Calculi for Modal Logics K, T, and D”. *The Review of Symbolic Logic* **14**(4), 910–929. DOI: [10.1017/S1755020320000180](https://doi.org/10.1017/S1755020320000180). PHILPAPERS: BURCCF-2. CITATIONS: 3
22. Zach, Richard (2021a). “Cut Elimination and Normalization for Generalized Single and Multi-Conclusion Sequent and Natural Deduction Calculi”. *The Review of Symbolic Logic* **14**(3), 645–686. DOI: [10.1017/S1755020320000015](https://doi.org/10.1017/S1755020320000015). PHILPAPERS: ZACCEA.
21. Zach, Richard (2018a). “Non-Analytic Tableaux for Chellas’s Conditional Logic CK and Lewis’s Logic of Counterfactuals VC”. *Australasian Journal of Logic* **15**(3), 609–628. DOI: [10.26686/ajl.v15i3.4780](https://doi.org/10.26686/ajl.v15i3.4780). PHILPAPERS: ZACNTF.
20. Zach, Richard (2018b). “Rumfitt on Truth-Grounds, Negation, and Vagueness”. *Philosophical Studies* **175**(8), 2079–2089. DOI: [10.1007/s11098-018-1114-7](https://doi.org/10.1007/s11098-018-1114-7). PHILPAPERS: ZACROT-3.
19. Schiemer, Georg, Richard Zach, and Erich Reck (2017). “Carnap’s Early Metatheory: Scope and Limits”. *Synthese* **194**(1), 33–65. DOI: [10.1007/s11229-015-0877-z](https://doi.org/10.1007/s11229-015-0877-z). PHILPAPERS: SCHCEM-3. CITATIONS: 11
18. Zach, Richard (2016b). “Natural Deduction for the Sheffer Stroke and Peirce’s Arrow (and Any Other Truth-Functional Connective)”. *Journal of Philosophical Logic* **45**(2), 183–197. DOI: [10.1007/s10992-015-9370-x](https://doi.org/10.1007/s10992-015-9370-x). PHILPAPERS: ZACNDF.
17. Mancosu, Paolo and Richard Zach (2015). “Heinrich Behmann’s 1921 Lecture on the Decision Problem and the Algebra of Logic”. *Bulletin of Symbolic Logic* **21**(2), 164–187. DOI: [10.1017/bsl.2015.10](https://doi.org/10.1017/bsl.2015.10). PHILPAPERS: ZACHB. CITATIONS: 10
16. Serchuk, Phil, Ian Hargreaves, and Richard Zach (2011). “Vagueness, Logic and Use: Four Experimental Studies on Vagueness”. *Mind and Language* **26**(5), 540–573. DOI: [10.1111/j.1468-0017.2011.01430.x](https://doi.org/10.1111/j.1468-0017.2011.01430.x). PHILPAPERS: SERVLA. CITATIONS: 65
15. Baaz, Matthias, Norbert Preining, and Richard Zach (2007). “First-Order Gödel Logics”. *Annals of Pure and Applied Logic* **147**(1-2), 23–47. DOI: [10.1016/j.apal.2007.03.001](https://doi.org/10.1016/j.apal.2007.03.001). PHILPAPERS: ZACFGL. CITATIONS: 87
14. Moser, Georg and Richard Zach (2006b). “The Epsilon Calculus and Herbrand Complexity”. *Studia Logica* **82**(1), 133–155. DOI: [10.1007/s11225-006-6610-7](https://doi.org/10.1007/s11225-006-6610-7). PHILPAPERS: MOSTEC-3. CITATIONS: 44
13. Zach, Richard (2004a). “Decidability of Quantified Propositional Intuitionistic Logic and S₄ on Trees of Height and Arity $\leq \omega$ ”. *Journal of Philosophical Logic* **33**(2), 155–164. DOI: [10.1023/B:LOGI.0000021744.10237.d0](https://doi.org/10.1023/B:LOGI.0000021744.10237.d0). PHILPAPERS: ZACDOQ. CITATIONS: 11

12. Zach, Richard (2004b). “Hilbert’s ‘*Verunglückter Beweis*’, the First Epsilon Theorem, and Consistency Proofs”. *History and Philosophy of Logic* **25**(2), 79–94. DOI: [10.1080/01445340310001606930](https://doi.org/10.1080/01445340310001606930). PHILPAPERS: [RICHV](#). CITATIONS: [21](#)
11. Zach, Richard (2004c). “Le quantificateur effini, la descente infinie et les preuves de consistance de Gauthier”. *Philosophiques* **31**, 221–224. DOI: [10.7202/008942ar](https://doi.org/10.7202/008942ar). PHILPAPERS: [ZACLQE](#). CITATIONS: [1](#)
10. Zach, Richard (2003b). “The Practice of Finitism: Epsilon Calculus and Consistency Proofs in Hilbert’s Program”. *Synthese* **137**(1/2), 211–259. DOI: [10.1023/A:1026247421383](https://doi.org/10.1023/A:1026247421383). PHILPAPERS: [ZACTPO](#). CITATIONS: [80](#)
9. Zach, Richard (1999a). “Completeness before Post: Bernays, Hilbert, and the Development of Propositional Logic”. *The Bulletin of Symbolic Logic* **5**(3), 331–366. DOI: [10.2307/421184](https://doi.org/10.2307/421184). PHILPAPERS: [ZACCBP](#). CITATIONS: [122](#)
8. Baaz, Matthias, Christian G. Fermüller, Gernot Salzer, and Richard Zach (1998). “Labeled Calculi and Finite-Valued Logics”. *Studia Logica* **61**(1), 7–33. DOI: [10.1023/A:1005022012721](https://doi.org/10.1023/A:1005022012721). PHILPAPERS: [BAALCA](#). CITATIONS: [73](#)
7. Baaz, Matthias and Richard Zach (1998b). “Note on Generalizing Theorems in Algebraically Closed Fields”. *Archive for Mathematical Logic* **37**(5–6), 297–307. DOI: [10.1007/s001530050100](https://doi.org/10.1007/s001530050100). PHILPAPERS: [BAANOG](#). CITATIONS: [3](#)
6. Zach, Richard (1998). “Numbers and Functions in Hilbert’s Finitism”. *Taiwanese Journal for Philosophy and History of Science* **10**, 33–60. PHILPAPERS: [ZACNAF](#). CITATIONS: [32](#)
5. Baaz, Matthias, Alexander Leitsch, and Richard Zach (1996a). “Completeness of a First-Order Temporal Logic with Time-Gaps”. *Theoretical Computer Science* **160**(1–2), 241–270. DOI: [10.1016/0304-3975\(95\)00107-7](https://doi.org/10.1016/0304-3975(95)00107-7). PHILPAPERS: [BAAC0A](#). CITATIONS: [41](#)
4. Baaz, Matthias and Richard Zach (1995b). “Generalizing Theorems in Real Closed Fields”. *Annals of Pure and Applied Logic* **75**(1–2), 3–23. DOI: [10.1016/0168-0072\(94\)00054-7](https://doi.org/10.1016/0168-0072(94)00054-7). PHILPAPERS: [BAAGTI](#). CITATIONS: [18](#)
3. Baaz, Matthias, Christian G. Fermüller, and Richard Zach (1993a). “Dual Systems of Sequents and Tableaux for Many-Valued Logics”. *Bulletin of the EATCS* **51**, 192–197. DOI: [10.11575/PRISM/38908](https://doi.org/10.11575/PRISM/38908). PHILPAPERS: [BAADSO](#). CITATIONS: [44](#)
2. Baaz, Matthias, Christian G. Fermüller, and Richard Zach (1993b). “Elimination of Cuts in First-Order Finite-Valued Logics”. *Journal of Information Processing and Cybernetics EIK* **29**(6), 333–355. DOI: [10.11575/PRISM/38801](https://doi.org/10.11575/PRISM/38801). PHILPAPERS: [BAAEOC](#). CITATIONS: [82](#)

1. Baaz, Matthias and Richard Zach (1992). “Note on Calculi for a Three-Valued Logic for Logic Programming”. *Bulletin of the EATCS* **48**, 157–164. DOI: [10.11575/PRISM/39881](https://doi.org/10.11575/PRISM/39881). CITATIONS: 7

Book Chapters

26. Avigad, Jeremy and Richard Zach (2024). “The Epsilon Calculus”. In: *Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Fall 2024. Metaphysics Research Lab, Stanford University. PHILPAPERS: [AVITEC-2](#). LINK. CITATIONS: 86
25. Mancosu, Paolo and Richard Zach (2024). “Some Unpublished Letters by Gödel and von Neumann in the Fraenkel Archive”. In: *Festschrift for Volker Peckhaus*. Forthcoming. London: College Publications, pp. 1–42. arXiv: [2301.09814](https://arxiv.org/abs/2301.09814).
24. Zach, Richard (2024). “Logic in Mathematics and Computer Science”. In: *The Oxford Handbook of Philosophy of Logic*. Ed. by Elke Brendel, Massimiliano Carrara, Filippo Ferrari, Ole Hjortland, Gil Sagi, Gila Sher, and Florian Steinberger. Forthcoming. Oxford: Oxford University Press, pp. 1–35. arXiv: [2404.09033](https://arxiv.org/abs/2404.09033).
23. Mancosu, Paolo and Richard Zach (2022). “Note introductive à Heinrich Behmann, “Problème de la décision et Algebre de la Logique” (1921)”. In: *Anthologie de la calculabilité: Naissance et développements de la théorie de la calculabilité des années 1920 à 1970*. Ed. by Jean Mosconi and Michel Bourdeau. Nouvelle bibliothèque mathématique 15. Paris: Cassini, pp. 108–115.
22. Zach, Richard (2019c). “Hilbert’s Program”. In: *Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Fall 2019. PHILPAPERS: [ZACHP-3](#). LINK. CITATIONS: 254
21. Zach, Richard (2019g). “The Significance of the Curry-Howard Isomorphism”. In: *Philosophy of Logic and Mathematics. Proceedings of the 41st International Ludwig Wittgenstein Symposium*. Ed. by Gabriele M. Mras, Paul Weingartner, and Bernhard Ritter. Publications of the Austrian Ludwig Wittgenstein Society, New Series 26. Berlin: De Gruyter, pp. 313–325. DOI: [10.1515/9783110657883-018](https://doi.org/10.1515/9783110657883-018). PHILPAPERS: [RICTSO-41](#).
20. Zach, Richard (2017b). “Semantics and Proof Theory of the Epsilon Calculus”. In: *Logic and Its Applications. ICLA 2017*. Ed. by Sujata Ghosh and Sanjiva Prasad. LNCS 10119. Berlin: Springer, pp. 27–47. DOI: [10.1007/978-3-662-54069-5_4](https://doi.org/10.1007/978-3-662-54069-5_4). PHILPAPERS: [ZACSAP](#).
19. Mancosu, Paolo, Richard Zach, and Calixto Badesa (2009). “The Development of Mathematical Logic from Russell to Tarski: 1900–1935”. In: *The Development of Modern Logic*. Ed. by Leila Haaparanta. New York and Oxford: Oxford University Press, pp. 324–478. DOI: [10.1093/acprof:oso/9780195137316.003.0029](https://doi.org/10.1093/acprof:oso/9780195137316.003.0029). PHILPAPERS: [MANTDO-2](#). CITATIONS: 97

18. Baaz, Matthias and Richard Zach (2008). “Effective Finite-Valued Approximations of General Propositional Logics”. In: *Pillars of Computer Science: Essays Dedicated to Boris (Boaz) Trakhtenbrot on the Occasion of His 85th Birthday*. Ed. by Arnon Avron, Nachum Dershowitz, and Alexander Rabinovich. LNCS 4800. Berlin: Springer, pp. 107–129. DOI: [10.1007/978-3-540-78127-1_7](https://doi.org/10.1007/978-3-540-78127-1_7). PHILPAPERS: [BAAEFA](#). CITATIONS: [1](#)
17. Zach, Richard (2007a). “Hilbert’s Program Then and Now”. In: *Philosophy of Logic*. Ed. by Dale Jacquette. Vol. 5. Handbook of the Philosophy of Science. Amsterdam: North-Holland, pp. 411–447. DOI: [10.1016/B978-044451541-4/50014-2](https://doi.org/10.1016/B978-044451541-4/50014-2). PHILPAPERS: [ZACHPT](#). LINK. CITATIONS: [148](#)
16. Baaz, Matthias, Norbert Preining, and Richard Zach (2006). “Completeness of a Hypersequent Calculus for Some First-Order Gödel Logics with Delta”. In: *36th International Symposium on Multiple-valued Logic. May 2006, Singapore. Proceedings*. Los Alamitos: IEEE Press, pp. 9–14. DOI: [10.1109/ISMVL.2006.16](https://doi.org/10.1109/ISMVL.2006.16). PHILPAPERS: [BAACOA-2](#). CITATIONS: [11](#)
15. Zach, Richard (2006a). “Hilbert, Programma di”. In: *Enciclopedia Filosofica di Gallarate*. Milan: Bompiani, pp. 5285–5291.
14. Zach, Richard (2006b). “Kurt Gödel and Computability Theory”. In: *Logical Approaches to Computational Barriers. Second Conference on Computability in Europe, CiE 2006, Swansea. Proceedings*. Ed. by Arnold Beckmann, Ulrich Berger, Benedikt Löwe, and John V. Tucker. LNCS 3988. Berlin: Springer, pp. 575–583. DOI: [10.1007/11780342_59](https://doi.org/10.1007/11780342_59). PHILPAPERS: [ZACKGA](#). CITATIONS: [5](#)
13. Zach, Richard (2005b). “Kurt Gödel, Paper on the Incompleteness Theorems (1931)”. In: *Landmark Writings in Mathematics*. Ed. by Ivor Grattan-Guinness. Amsterdam: Elsevier, pp. 917–925. DOI: [10.1016/B978-044450871-3/50152-2](https://doi.org/10.1016/B978-044450871-3/50152-2). PHILPAPERS: [ZACKGP](#). CITATIONS: [2](#)
12. Baaz, Matthias, Norbert Preining, and Richard Zach (2003). “Characterization of the Axiomatizable Prenex Fragments of First-Order Gödel Logics”. In: *33rd International Symposium on Multiple-valued Logic. May 2003, Tokyo, Japan. Proceedings*. 33rd International Symposium on Multiple-Valued Logic, 2003. Proceedings. Los Alamitos: IEEE Press, pp. 175–180. DOI: [10.1109/ISMVL.2003.1201403](https://doi.org/10.1109/ISMVL.2003.1201403). CITATIONS: [20](#)
11. Baaz, Matthias and Richard Zach (2002). “Das Vollständigkeitsproblem und der Vollständigkeitsbeweis”. In: *Kurt Gödel: Wahrheit und Beweisbarkeit. Volume 2: Kompendium zum Werk*. Ed. by Bernd Buldt et al. Vienna: hpt, pp. 21–27.
10. Fermüller, Christian G., Georg Moser, and Richard Zach (2001). “Tableaux for Reasoning about Atomic Updates”. In: *Logic for Programming, Artificial Intelligence, and Reasoning*. Ed. by Robert Nieuwenhuis and Andrei Voronkov. LNCS 2250. Berlin: Springer, pp. 639–653. DOI: [10.1007/3-540-45653-8_44](https://doi.org/10.1007/3-540-45653-8_44). CITATIONS: [2](#)

9. Baaz, Matthias, Agata Ciabattoni, and Richard Zach (2000). “Quantified Propositional Gödel Logic”. In: *Logic for Programming and Automated Reasoning. 7th International Conference, LPAR 2000*. Ed. by Andrei Voronkov and Michel Parigot. LNCS 1955. Berlin: Springer, pp. 240–256. DOI: [10.1007/3-540-44404-1_16](https://doi.org/10.1007/3-540-44404-1_16). PHILPAPERS: [BAAQPG](#). CITATIONS: [26](#)
8. Baaz, Matthias and Richard Zach (2000). “Hypersequents and the Proof Theory of Intuitionistic Fuzzy Logic”. In: *Computer Science Logic. 14th International Workshop, CSL 2000*. Ed. by Peter G. Clote and Helmut Schwichtenberg. LNCS 1862. Berlin: Springer, pp. 187–201. DOI: [10.1007/3-540-44622-2_12](https://doi.org/10.1007/3-540-44622-2_12). PHILPAPERS: [BAAHAT](#). CITATIONS: [79](#)
7. Baaz, Matthias and Richard Zach (1998a). “Compact Propositional Gödel Logics”. In: *28th International Symposium on Multiple-valued Logic. May 1998, Fukuoka, Japan. Proceedings*. Los Alamitos: IEEE Press, pp. 108–113. DOI: [10.1109/ISMVL.1998.679315](https://doi.org/10.1109/ISMVL.1998.679315). PHILPAPERS: [BAACPG](#). CITATIONS: [55](#)
6. Baaz, Matthias, Alexander Leitsch, and Richard Zach (1996b). “Incompleteness of an Infinite-Valued First-Order Gödel Logic and of Some Temporal Logics of Programs”. In: *Computer Science Logic. CSL 1995. Selected Papers*. Ed. by E. Börger. LNCS 1092. Berlin: Springer, pp. 1–15. DOI: [10.1007/3-540-61377-3_28](https://doi.org/10.1007/3-540-61377-3_28). PHILPAPERS: [BAAIOA](#). CITATIONS: [39](#)
5. Baaz, Matthias and Richard Zach (1994a). “Approximating Propositional Calculi by Finite-Valued Logics”. In: *24th International Symposium on Multiple-valued Logic, 1994. Proceedings*. Los Alamitos: IEEE Press, pp. 257–263. DOI: [10.1109/ISMVL.1994.302193](https://doi.org/10.1109/ISMVL.1994.302193). PHILPAPERS: [BAAAPC](#). CITATIONS: [11](#)
4. Baaz, Matthias and Richard Zach (1994b). “Short Proofs of Tautologies Using the Schema of Equivalence”. In: *Computer Science Logic. 7th Workshop, CSL '93, Swansea. Selected Papers*. Ed. by Egon Börger, Yuri Gurevich, and Karl Meinke. LNCS 832. Berlin: Springer, pp. 33–35. DOI: [10.1007/BFb0049322](https://doi.org/10.1007/BFb0049322). PHILPAPERS: [BAASPO](#). CITATIONS: [16](#)
3. Baaz, Matthias, Christian G. Fermüller, Arie Ovrutcki, and Richard Zach (1993). “MULTLOG: A System for Axiomatizing Many-Valued Logics”. In: *Logic Programming and Automated Reasoning. Proceedings LPAR'93*. Ed. by Andrei Voronkov. LNCS 698. Berlin: Springer, pp. 345–347. DOI: [10.1007/3-540-56944-8_66](https://doi.org/10.1007/3-540-56944-8_66). CITATIONS: [27](#)
2. Baaz, Matthias, Christian G. Fermüller, and Richard Zach (1993c). “Systematic Construction of Natural Deduction Systems for Many-Valued Logics”. In: *23rd International Symposium on Multiple-valued Logic. Proceedings*. Los Alamitos: IEEE Press, pp. 208–213. DOI: [10.1109/ISMVL.1993.289558](https://doi.org/10.1109/ISMVL.1993.289558). PHILPAPERS: [FERSCO-3](#). CITATIONS: [69](#)

1. Baaz, Matthias and Richard Zach (1993). “Algorithmic Structuring of Cut-Free Proofs”. In: *Computer Science Logic. CSL'92, San Miniato, Italy. Selected Papers*. Ed. by Egon Börger, Gerhard Jäger, Hans Kleine Büning, Simone Martini, and Michael M. Richter. LNCS 702. Berlin: Springer, pp. 29–42. DOI: [10.1007/3-540-56992-8_4](https://doi.org/10.1007/3-540-56992-8_4). PHILPAPERS: BAAASO. CITATIONS: 20

Book Reviews

5. Zach, Richard (2005c). “Review of *Gödel’s Theorem: Its Use and Abuse*, by Torkel Franzén (AK Peters, 2005)”. *History and Philosophy of Logic* **26**(4), 369–371. DOI: [10.1080/01445340500259388](https://doi.org/10.1080/01445340500259388). PHILPAPERS: ZACTFG.
4. Zach, Richard (2005d). “Review of *Reason’s Nearest Kin: Philosophies of Arithmetic From Kant to Carnap* by Michael Potter (Oxford University Press, 2000)”. *Notre Dame Journal of Formal Logic* **46**(4), 503–513. DOI: [10.1305/ndjfl/1134397665](https://doi.org/10.1305/ndjfl/1134397665). PHILPAPERS: RICBRM-2. CITATIONS: 1
3. Zach, Richard (2003a). “Review of *Computability and Logic*, 4th Edition, by George Boolos, John Burgess, and Richard Jeffrey (Cambridge, 2002)”. *Bulletin of Symbolic Logic* **9**(4), 520–521. DOI: [10.1017/S1079898600004340](https://doi.org/10.1017/S1079898600004340). JSTOR: 3133728. LINK.
2. Zach, Richard (2002c). “Review of *Computability. Computable Functions, Logic, and the Foundations of Mathematics*, 2nd Edition, by Richard L. Epstein and Walter A. Carnielli (Wadsworth, 2000)”. *History and Philosophy of Logic* **23**(1), 67–70. DOI: [10.1080/01445340110067158](https://doi.org/10.1080/01445340110067158).
1. Hájek, Petr and Richard Zach (1994). “Review of *Many-valued Logics: 1. Theoretical Foundations*, by Leonard Bolc and Piotr Borowik (Springer, Berlin, 1991)”. *Journal of Applied Non-Classical Logics* **4**, 215–220. DOI: [10.1080/11663081.1994.10510833](https://doi.org/10.1080/11663081.1994.10510833). CITATIONS: 4

Translations

4. Carnap, Rudolf (2019b). “On the Task of Physics and the Application of the Principle of Maximal Simplicity”. In: *Rudolf Carnap: Early Writings*. Ed. by A. W. Carus, Michael Friedman, Wolfgang Kienzler, Alan Richardson, and Sven Schlotter. Trans. by Johannes Hafner, Paolo Mancosu, Christopher Pincock, Henning Treuper, Herbert Wilson, Richard Zach, A. W. Carus, and Michael Friedman. The Collected Works of Rudolf Carnap 1. With editorial assistance by Steve Awodey, Dirk Schlimm, and Richard Zach. Oxford: Oxford University Press, pp. 209–245. Google Books: [2CaeDwAAQBAJ](https://books.google.com/books?id=2CaeDwAAQBAJ).
3. Eiter, Thomas (2016). “Helmut Veith (1971–2016)”. Trans. by Richard Zach. *Bulletin of the EATCS* **119**. LINK.

2. Bernays, Paul (2012). “Axiomatic Investigations of the Propositional Calculus of *Principia Mathematica*”. In: *Universal Logic: An Anthology*. Ed. by Jean-Yves Béziau. Trans. by Richard Zach. New York and Basel: Springer, pp. 43–58. PHILPAPERS: [BERAI0-6](#).
1. Carnap, Rudolf, Hans Hahn, and Otto Neurath (2012). “The Scientific World-Conception: The Vienna Circle”. In: *Wissenschaftliche Weltauffassung: Der Wiener Kreis*. Ed. by Friedrich Stadler and Thomas Uebel. Trans. by Thomas Uebel and Richard Zach. Vienna and New York: Springer, pp. 75–116.

Abstracts

18. Gil, Ángel, Gernot Salzer, and Richard Zach (2024b). “MULTseq 2.0: A General Purpose Finite-Valued Prover”. In: *Topology, Algebra, and Category Theory TACL 2024*. Barcelona. [LINK](#).
17. Elkind, Landon D. C. and Richard Zach (2021). “The Genealogy of \vee ”. *The Bulletin of Symbolic Logic* **27**(3), 327–328. DOI: [10.1017/bsl.2021.50](#).
16. Wyatt, Nicole and Richard Zach (2018). “The Open Logic Project”. *Bulletin of Symbolic Logic* **24**(2), 205.
15. Zach, Richard (2017a). “General Natural Deduction Rules and General Lambda Calculi”. *Bulletin of Symbolic Logic* **23**(3), 371.
14. Baaz, Matthias and Richard Zach (2014). “The Epsilon Calculus and Non-Classical Logics”. *Bulletin of Symbolic Logic* **19**, 513.
13. Zach, Richard (2008). “Carnap’s Logic in the 1930s”. *Bulletin of Symbolic Logic* **14**, 426.
12. Zach, Richard (2007b). “The Decision Problem and Metalogic”. *Bulletin of Symbolic Logic* **13**, 319.
11. Moser, Georg and Richard Zach (2006a). “Complexity of Elimination Procedures in the Epsilon Calculus”. *Bulletin of Symbolic Logic* **12**, 341–342.
10. Arana, Andrew, Michael Glanzberg, Ted Sider, Brian Weatherson, and Richard Zach (2005). “Panel Discussion: Logic Instruction and Philosophy Graduate Training”. *The Bulletin of Symbolic Logic* **11**, 549–550.
9. Baaz, Matthias, Norbert Preining, and Richard Zach (2005). “Axiomatizability of First-Order Gödel Logics”. *Bulletin of Symbolic Logic* **11**, 267.
8. Zach, Richard (2005a). “Gödel’s First Incompleteness Theorem and Detlefsen’s Hilbertian Instrumentalism”. *Bulletin of Symbolic Logic* **11**, 301.

7. Moser, Georg and Richard Zach (2003). “The Epsilon Calculus”. In: *Kurt Gödel Colloquium. Computer Science Logic, 2003. Proceedings*. Berlin: Springer, pp. 455.
6. Zach, Richard (2002a). “Hilbert’s ‘Verunglückter Beweis’ and the Epsilon Theorem”. *Bulletin of Symbolic Logic* **8**, 449–450.
5. Zach, Richard (2002b). “Quantified Propositional Intuitionistic Logic on Trees Is Decidable”. *Bulletin of Symbolic Logic* **8**, 163.
4. Zach, Richard (2001a). “Hilbert’s ‘Ansatz’ for the ε -Substitution Method and Ackermann’s Dissertation”. *Bulletin of Symbolic Logic* **7**, 417.
3. Zach, Richard (1999b). “Hilbert, Bernays, and Some Fundamental Advances in Logic, 1918–1923,” *Bulletin of Symbolic Logic* **5**, 481.
2. Baaz, Matthias, Christian G. Fermüller, and Richard Zach (1995). “Proof Theory of Finite-Valued Logics”. *Bulletin of Symbolic Logic* **1**, 221–222.
1. Baaz, Matthias and Richard Zach (1995a). “Generalizing Theorems in Real Closed Fields”. *Bulletin of Symbolic Logic* **1**, 361.

Theses

2. Zach, Richard (2001b). “Hilbert’s Finitism: Historical, Philosophical, and Metamathematical Perspectives”. PhD thesis. University of California, Berkeley.
PHILPAPERS: [ZACHFH](#). CITATIONS: [37](#)
1. Zach, Richard (1993). “Proof Theory of Finite-Valued Logics”. Diplomarbeit. Vienna, Austria: Technische Universität Wien. DOI: [10.11575/PRISM/38803](https://doi.org/10.11575/PRISM/38803). CITATIONS: [107](#)

Reports

2. Baaz, Matthias, Christian G. Fermüller, and Richard Zach (1993d). *Systematic Construction of Natural Deduction Systems for Many-Valued Logics. Extended Report*. TUW–185.2–BFZ.1–93. Vienna: Technische Universität Wien, Institut für Computersprachen E185.2. DOI: [10.11575/PRISM/39963](https://doi.org/10.11575/PRISM/39963).
1. Zach, Richard, Gerhard Widmer, and Robert Trappl (1990). *Artificial Intelligence: A Short Bibliography on AI and the Arts*. TR-90-14. Vienna: Austrian Research Institute for Artificial Intelligence. DOI: [10.11575/PRISM/39857](https://doi.org/10.11575/PRISM/39857).

Other

16. Selinger, Peter and Richard Zach (2023). *Fitch – LaTeX Macros for Fitch-style Natural Deduction*. Version 1.0. [LINK](#).

15. Zach, Richard (2022a). “Bernays’s Propositional Calculus (1918)”. In: *Encyclopaedia of Proof Systems*. Ed. by Bruno Woltzenlogel Paleo and Giselle Reis. 3rd ed. London: College Publications, pp. 9.
14. Zach, Richard (2022b). “Hilbert and Ackermann’s Calculus (1928)”. In: *Encyclopaedia of Proof Systems*. Ed. by Bruno Woltzenlogel Paleo and Giselle Reis. 3rd ed. London: College Publications, pp. 10.
13. Zach, Richard (2022c). “Hilbert’s Axiomatic Calculus (1917)”. In: *Encyclopaedia of Proof Systems*. Ed. by Bruno Woltzenlogel Paleo and Giselle Reis. 3rd ed. London: College Publications, pp. 8.
12. Zach, Richard (2021b). “Learning Outcomes and Grade Specifications in a Formal Logic Course”. Poster presentation. Mastery Grading University Conference 2021 (Online). [LINK](#).
11. Zach, Richard (2020a). “Frege’s and Russell’s Crisis”. In: Misak, Cheryl. *Frank Ramsey: A Sheer Excess of Powers*. Oxford: Oxford University Press, pp. 67–68.
10. Zach, Richard (2019b). *Bussproofs-Extra: Extra Commands for Bussproofs.Sty*. [LINK](#).
9. Zach, Richard (2019e). *Keyindex: Index Entries by Key Lookup*. [LINK](#).
8. Zach, Richard (2019f). *Ptolemaicastronomy: Diagrams of Sphere Models for Variably Strict Conditionals (Lewis Counterfactuals)*. [LINK](#).
7. Zach, Richard (2019h). *Ucalgmthesis: LaTeX Thesis Class for University of Calgary Faculty of Graduate Studies*. [LINK](#).
6. Hosni, Hykel and Richard Zach (2018). “Interview with Richard Zach”. *The Reasoner* **12**(4), 26–28. [LINK](#).
5. Thomas-Bolduc, Aaron and Richard Zach (2018). *OER: What, Why, When and How*. Taylor Institute for Teaching and Learning. [LINK](#).
4. Thomas-Bolduc, Aaron and Richard Zach (2017). “Logic Courses for the 21st Century”. In: International Society for the Study of Teaching and Learning 2017 Annual Meeting (Calgary). PHILPAPERS: [THOEQA-7](#). [LINK](#).
3. Zach, Richard (2016a). “Helmut Veith (1971–2016)”. *Bulletin of the EATCS* **119**. [LINK](#).
2. Etchemendy, John, Dave Barker-Plummer, and Richard Zach (2013). *The Lplfitch Package*. Version 0.9. [LINK](#).
1. Antonelli, Aldo, Alasdair Urquhart, and Richard Zach (2008). “Editors’ Introduction. Mathematical Methods in Philosophy”. *The Review of Symbolic Logic* **1**(2), 143–145. DOI: [10.1017/S1755020308080131](https://doi.org/10.1017/S1755020308080131).

Presentations *Invited Departmental Presentations*

- “The Pre-History of Automated Reasoning.” Logic Seminar, Wuhan University, 2023.
- “The Pre-History of Automated Reasoning.” Logic & Theory Group, Vienna University of Technology, 2023.
- “Semantics of First-order Logic: The Early Years.” Munich Center for Mathematical Philosophy, Ludwig-Maximilians-Universität, Munich, 2023.
- “The Pre-History of Automated Reasoning.” PHILMATH Seminar, Institut d’Histoire et Philosophie des Sciences et Techniques, CNRS/Université Paris 1 Panthéon-Sorbonne, 2023.
- “Semantics of First-order Logic: The Early Years.” Logic Seminar (online), Sun Yat-sen University, Guangzhou, 2022.
- “Prefixed Tableaux for Simply Dependent Multimodal Logics.” Logic & Theory Group, Vienna University of Technology, 2022.
- “Hilbert’s Program and Infinity.” Logic Café, University of Vienna, 2022.
- “Hilbert’s Program and Infinity.” Séminaire «Infini mathématique», Université Paris I, 2022.
- “Semantics of First-order Logic: The Early Years.” PHILMATH Seminar, Institut d’Histoire et Philosophie des Sciences et Techniques, CNRS/Université Paris 1 Panthéon-Sorbonne, 2022.
- “Semantics of First-order Logic: The Early Years.” Logic Seminar, University of Connecticut, Storrs, 2021.
- “Logic and Computation in the 1920s and 30s.” Philosophy of Computation and Statistics Workshop, University of Pennsylvania, 2021.
- “The Origins of Modern First-order Logic.” Philosophy Colloquium, Carnegie Mellon University, 2017.
- “The Decision Problem and Logical Metatheory.” SoMLaFS Colloquium, The Ohio State University, 2017.
- “Substitution, Consequence, and Proof, or: How Many Consequence Relations Can One Logic Have?.” Department of Philosophy, University of British Columbia, Okanagan, 2016.
- “Derivation and Consequence.” Philosophy Workshop, McGill University, 2015.
- “The Decision Problem and Logical Metatheory.” Townsend Center Working Group in History and Philosophy of Logic, Mathematics, and Science, University of California, Berkeley, 2014.
- “Carnap and Logic in the 1920s and 1930s.” Minnesota Center for Philosophy of Science, University of Minnesota, 2014.
- “The Decision Problem and Logical Metatheory.” Foundations Interest Group, Department of Philosophy, University of Minnesota, 2014.
- “The Decision Problem and the Development of Metalogic.” Logic and Philosophy of Science Group, University of Toronto, 2012.

- “Gödel’s First Incompleteness Theorem and Mathematical Instrumentalism.” Keio University, Tokyo, 2011.
- “Proof Interpretations and the Constructive Content of Mathematical Theories.” Kyoto University, 2011.
- “The Epsilon Calculus.” Keio University, Tokyo, 2011.
- “The Decision Problem and the Development of Metalogic.” Department of Philosophy, McGill University, 2009.
- “Proof Interpretations and the Constructive Content of Mathematical Theories.” Wissenschaftstheoretisches Kolloquium, University of Vienna, Austria, 2009.
- “The Decision Problem and the Development of Metalogic.” Department of Philosophy, Utrecht University, 2008.
- “Proof Construction, and Computation: Interactions between Philosophy of Mathematics and Mathematical Foundations.” Scuola Normale Superiore, Pisa, 2008.
- “The Epsilon Calculus.” Logic Group, University of Melbourne, 2006.
- “Logic and Cagueness.” Department of Philosophy, University of Melbourne, 2006.
- “Gödel’s First Incompleteness Theorem and Mathematical Instrumentalism.” Gödel Seminar, University of Notre Dame, 2006.
- “Algebraic Semantics for Logics of Vagueness.” Kurt Gödel Society, University of Technology, Vienna, 2005.
- “What Should a Logic of Vagueness Be and Do?.” Philosophy Department, Stanford University, 2005.
- “How to Argue for and against a Logic of Vagueness.” Logic and Philosophy of Science Colloquium, University of California, Irvine, 2004.
- “Vagueness and Infinitely Many Truth Values.” Townsend Center Working Group in History and Philosophy of Logic, Mathematics, and Science, University of California, Berkeley, 2004.
- “Gödel’s First Incompleteness Theorem and Mathematical Instrumentalism.” Department of Philosophy, University of Lethbridge, 2004.
- “Completeness and Decidability in the Context of Hilbert’s Philosophy.” Department of Philosophy, University of Alberta, 2003.
- “The Early History of the Epsilon Calculus.” Townsend Center Working Group in History and Philosophy of Logic, Mathematics, and Science, University of California, Berkeley, 2002.
- “Logic and Metalogic in Hilbert’s School.” Seminari de Lògica, Universitat de Barcelona, 2002.
- “The Epistemology of Mathematics and Hilbert’s Finitism.” Department of Philosophy, University of Calgary, 2001.
- “Epsilon Calculus and Consistency Proofs in Hilbert’s Program.” Mathematical Logic Seminar, Stanford University, 2001.
- “Instrumentalism in Mathematics.” Department of Philosophy, University of South Florida, Tampa, 2001.

- “Epsilon Calculus and Consistency Proofs in Hilbert’s Program.” Department of Logic and Philosophy of Science, University of California, Irvine, 2001.
- “Finitism and Mathematical Intuition.” Department of Philosophy, Oxford University, 2000.
- “Finitism and Mathematical Intuition.” Department of Philosophy, University of Chicago, 2000.
- “Finitism and Mathematical Intuition.” Department of Philosophy, Stanford University, 2000.
- “Completeness before Post: Hilbert and Bernays on Propositional Logic, 1917–18.” Logic Lunch, Stanford University, 1999.
- “The Debate between Kreisel and Tait on Finitism.” Colloquium Logico-Philosophicum, Universität Erlangen-Nürnberg, 1998.
- “Finitism.” Kurt Gödel Society, Vienna, 1997.
- “Generalization of Theorems and Proofs: Kreisel’s Conjecture for Algebraic Theories.” Logic Lunch, Stanford University, 1997.
- “Axiomatizability Issues in Temporal and Infinite-Valued First-Order Logics.” Equipe de Logique, Université Paris 7 Denis Diderot, 1995.
- “Adventures in Many-Valued Logic.” Kurt Gödel Society, Vienna, 1995.
- “Proof Theory of Finite-Valued First-Order Logics.” Institute of Computer Science, Academy of Sciences of the Czech Republic, Prague, 1994.

Conference Keynotes

- “The Epsilon Calculus in Non-Classical Logics: Recent Results and Open Questions.” *Workshop on Logic, Language, and Information WoLLIC 2023*, Dalhousie University, Halifax, 2023.
- “The Significance of the Curry-Howard Isomorphism.” *Eastern Division Meeting of the American Philosophical Association*, New York, 2019.
- “Semantics and Proof Theory of the Epsilon Calculus.” *Indian Conference on Logic and its Applications*, Indian Institute of Technology, Kanpur, 2017.
- “Carnap on Models.” *Spring Meeting of the Association for Symbolic Logic, Symposium on Metalogic and Early Analytic Philosophy*, San Diego, 2014.
- “The Epsilon Calculus: An Undervalued Logical Formalism.” *Annual Meeting of the Society for Exact Philosophy*, Montréal, 2013.
- “Carnap, Logic, and Analytic Philosophy.” *200 Years of Analytic Philosophy*, University of Latvia, Rīga, 2008.
- “The decision problem and the development of metalogic.” *Annual Meeting of the Association for Symbolic Logic*, University of Florida, Gainesville, FL, 2007.
- “Kurt Gödel and computability theory.” *Computability in Europe CiE 2006: Logical Approaches to Computational Barriers*, Swansea, Wales, 2006.
- “The Epsilon Calculus.” *Kurt Gödel Colloquium/Conference on Computer Science Logic CSL’03*, tutorial, jointly with Georg Moser, University of Technology Vienna, 2003.

Invited Conference and Workshop Talks

- “Hilbert’s program and infinity.” *Logic in Philosophy Workshop: Incompleteness and Intuition*, University of Rijeka, 2024.
- “The Epsilon Calculus in Non-Classical Logics: Recent Results and Open Questions.” *Proof Representations: From Theory to Applications*, Schloss Dagstuhl, 2024.
- “Hilbert’s program and infinity.” *Gödel and Kant on Mathematics and Physics*, University of Tübingen, 2023.
- “The Automation of Reasoning.” *The Formal Turn in 20th Century Thought*, University of Vienna, 2023.
- “Hilbert’s program and infinity.” *Online Colloquium*, Canadian Society for the History and Philosophy of Mathematics, 2022.
- “The Philosophical Significance of the Curry-Howard Isomorphism.” *41st International Wittgenstein Symposium*, Kirchberg am Wechsel, Austria, 2018.
- “The Open Logic Project.” *Spring Meeting of the Association for Symbolic Logic*, Special Session on Diversity in Logic Education, Seattle, 2017.
- “General Rules for Sequent Calculus and Natural Deduction.” *OSU/UConn Workshop on Truth*, The Ohio State University, 2017.
- “The Fruitfulness of Philosophy of Mathematics.” *Workshop on Mathematics and Culture*, Indian Institute of Engineering Science and Technology, Shibpur, 2017.
- “Carnap as a Logician.” *Carnap on Logic Conference*, Munich Center for Mathematical Philosophy, 2013.
- “Carnap and Logic.” *Workshop on Formal Epistemology and the Legacy of Logical Empiricism*, University of Texas, Austin, 2013.
- “‘Principia Mathematica’ and the development of logic.” *PM@100*, McMaster University, Hamilton, 2010.
- “Bernays and the Decision Problem in Hilbert’s School.” *Bernaysfest*, Carnegie Mellon University, 2008.
- “Carnap’s Logic in the 1930s.” *Annual Meeting of the Association for Symbolic Logic*, Special Session on Logic and Logical Empiricism, University of California, Irvine, 2008.
- “Analytic Systems for the ε -Calculus.” *Analytic Systems/LPAR 2007*, Yerevan, Armenia, 2007.
- “The Decision Problem in the 1920s.” *Moscow-Vienna Workshop on Logic and Computation*, Technical University Vienna, Vienna, Austria, 2007.
- “Algorithms and decision problems in Hilbert’s school.” *Hilbert Workshop*, Kyoto University, 2006.
- “Vagueness and Fuzzy Logics.” *Uncertainty: Reasoning about Probability and Vagueness*, Prague, 2006.
- “Gödel’s First Incompleteness Theorem and Mathematical Instrumentalism.” *Truth and Proof: Kurt Gödel and the Foundations of Mathematics*, University of Edinburgh, 2006.
- “Semantics for Vagueness vs. Logics for Vagueness: The Case of Fuzzy Logics.” *The Challenge of Semantics (European Science Foundation Exploratory Workshop)*, Vienna, 2004.

- “Hilbert’s Epsilon Calculus and Epsilon-Substitution Method.” *Hilbert Workshop, Japanese Society for the Philosophy of Science*, Keio University, Tokyo, 2002.
- “Hilbert’s Project of Consistency Proofs in the 1920s.” *Logic and the Foundations of the Exact Sciences: Hilbert’s Heritage*, Berne, Switzerland, 2001.
- “Hilbert’s ‘Ansatz’ for the Epsilon-Substitution Method and Ackermann’s Dissertation.” *Spring Meeting of the Association for Symbolic Logic*, Special Session on Proof Theory and Constructivism, Minneapolis, 2001.
- “Epsilon Calculus and Consistency Proofs in Hilbert’s Program.” *Philosophy of Mathematics Workshop*, University of California, Los Angeles, 2001.
- “The Practice of Finitism.” *Hilbert Workshop*, Institut d’Histoire et Philosophie des Sciences et Techniques, CNRS/Université Paris I, 2000.
- “The Practice of Finitism.” *History of Logic*, University of Helsinki, 2000.
- “The Reach of Finitism.” *Collegium Logicum: Proof Theory*, Vienna, 1999.
- “The Historical Significance of Consistency Proofs.” *The Development of the Foundations of Mathematics in the 1920s and 30s*, Institute Vienna Circle, Vienna, 1999.
- “Bernays’ Early Contributions to Logic.” *The Development of Modern Logic*, University of Helsinki, 1998.
- “Uniform Deduction Systems for Finite-valued First-Order Logics.” *Eighth European Summer School in Language, Logic, and Information*, Prague, 1996.
- “A Software Package for Axiomatizing Finite-Valued First-Order Logics.” *Seventh European Summer School in Language, Logic, and Information*, Barcelona, 1995.

Conference Presentations

- “Steinhardt on Variables.” *Society for the Study of the History of Analytic Philosophy Annual Meeting*, Denver, 2016.
- “The Decision Problem and the Model Theory of First-order Logic.” *Canadian Society for History and Philosophy of Mathematics*, Calgary, 2016.
- “General Natural Deduction Rules and General Lambda Calculi.” *Annual Meeting of the Association for Symbolic Logic*, University of Connecticut, Storrs, 2016.
- “Substitution, Consequence, and Proof.” *Society for Exact Philosophy*, Hamilton, ON, 2015.
- “The Epsilon Calculus and Non-Classical Logics.” *Nonclassical Proofs: Theory, Applications, and Tools*, Vienna, 2014.
- “The Place of Logic in Computer Science Education.” *Logic Colloquium*, Vienna, 2014.
- “Carnap and Logic in the 1920s and 1930s.” *Society for the Study of the History of Analytic Philosophy Annual Meeting*, Montréal, 2014.
- “The Epsilon Calculus and Non-Classical Logics.” *Winter Meeting of the Association for Symbolic Logic*, New Orleans, 2013.
- “Carnap, Tolerance, and the Foundational Debate in Mathematics.” *International Congress on Logic, Philosophy, and Methodology of Science*, Nancy, France, 2011.
- “Ayer and the Vienna Circle.” *Western Canadian Philosophy Association*, University of Calgary, 2010.

- “Carnap between Logicism and Formalism.” *History of Philosophy of Science 2006*, Paris, 2006.
- “Complexity of Elimination Procedures in the Epsilon Calculus.” *Logic Colloquium*, Athens, Greece, 2005.
- “Algebraic Semantics for Logics of Vagueness.” *Society for Exact Philosophy*, University of Toronto, 2005.
- “Logic Instruction and Philosophy Graduate Training.” *Spring Meeting of the Association for Symbolic Logic*, San Francisco, 2005.
- “Gödel’s First Incompleteness Theorem and Detlefsen’s Hilbertian Instrumentalism.” *Logic Colloquium*, Turin, Italy, 2004.
- “Axiomatizability of First-Order Gödel Logics.” *Logic Colloquium*, Turin, Italy, 2004.
- “Finite-Valued Approximations of Propositional Logics.” *Foundational Methods in Computer Science*, Kananaskis Field Station, University of Calgary, 2004.
- “Gödel’s First Incompleteness Theorem and Mathematical Instrumentalism.” *Midwest Philosophy of Mathematics Workshop*, University of Notre Dame, 2003.
- “Characterization of the Axiomatizable Prenex Fragments of First-Order Gödel Logics.” *33rd International Symposium on Multiple Valued Logic*, Tokyo, 2003.
- “Hilbert’s ‘Verunglückter Beweis’ and the Epsilon Theorem.” *Spring Meeting of the Association for Symbolic Logic*, Seattle, 2002.
- “Quantified Propositional Intuitionistic Logic on Trees is Decidable.” *Logic Colloquium*, Vienna, 2001.
- “The Syntax-Semantics Distinction and Hilbert’s ‘No Ignorabimus’.” *History of Philosophy of Science*, Vienna, 2000.
- “Hilbert, Bernays, and some Fundamental Advances in Logic, 1918–1923.” *Spring Meeting of the Association for Symbolic Logic*, New Orleans, 1999.
- “Infinite-valued Gödel Logics.” *Annual Meeting of the Association for Symbolic Logic*, University of California, San Diego, 1999.
- “Hilbert’s Finitist Numbers.” *1997 Stanford–Berkeley Philosophy Conference*, Stanford University, 1997.
- “Generalizing Theorems in Real Closed Fields.” *Winter Meeting of the Association for Symbolic Logic*, San Francisco, 1995.
- “Approximating Propositional Calculi by Finite-Valued Logics.” *24th International Symposium on Multiple-Valued Logic*, Boston, 1994.
- “Systematic Construction of Natural Deduction Systems for Many-Valued Logics.” *23rd International Symposium on Multiple-Valued Logic*, Sacramento, 1993.

Commentaries

- “Comments on Patricia Blanchette: Models from Geometry to Logic.” *50th Chapel Hill Philosophy Colloquium*, University of North Carolina, Chapel Hill, 2016.
- “Comments on Bryson Brown and Andrew Tedder: Multiple Conclusions.” *Annual Meeting of the Western Canadian Philosophy Association*, University of Lethbridge, 2012.

- “Comments on Victor Rodych: Who is Wittgenstein’s Worst Enemy?.” *Annual Meeting of the Western Canadian Philosophy Association*, University of Lethbridge, 2003.
- “Comments on Jonathan Seldin: On Normalizing Disjunctive Intermediate Logics.” *Annual Meeting of the Western Canadian Philosophy Association*, University of Calgary, 2002.
- “Comments on Thomas Hofweber: Proof-Theoretic Reduction as a Philosopher’s Tool.” *Stanford-Berkeley Philosophy Conference*, Stanford University, 1999.

Local Presentations

- “Tutorial on Curry-Howard II.” Calgary Peripatetic Research Group in Logic and Category Theory, University of Calgary, 2023.
- “Tutorial on Curry-Howard I.” Calgary Peripatetic Research Group in Logic and Category Theory, University of Calgary, 2023.
- “Logical Archeology of Automated Theorem Proving.” World Logic Day in Alberta and British Columbia, Online, 2023.
- “OER: What, Why, When and How.” Taylor Institute for Teaching and Learning, Calgary, 2018.
- “Rudolf Carnap and the Logic of Tolerance.” Calgary Institute for the Humanities, University of Calgary, 2016.
- “Hilbert’s Program and the Foundations of Mathematics.” Department of Mathematics, University of Calgary, 2002.
- “Rudolf Carnap and the Logic of Tolerance.” Calgary Institute for the Humanities Public Lecture, University of Calgary, 2016.
- “Alan Turing and the Decision Problem.” Alan Turing Centenary Lecture Series, University of Calgary, 2012.
- “The Decision Problem and the Development of Metalogic.” Calgary Peripatetic Research Group in Logic and Category Theory, University of Calgary, 2008.
- “Logic, Paradox, and Misplaced Optimism: How Early 20th Century Philosophy of Mathematics Paved the Way for Modern Computer Science.” Calgary Institute for the Humanities Public Lecture, University of Calgary, 2007.
- “What is a Logic of Vagueness? And How do we Figure Out Which One is Right?.” Vender Research Group in Logic and Language, University of Calgary, 2005.
- “Mathematical Instrumentalism and Gödel’s Incompleteness Theorems.” History and Philosophy of Science Research Group, University of Calgary, 2004.
- “Introduction to the Epsilon Calculus II.” Calgary Peripatetic Research Group on Logic and Category Theory, University of Calgary, 2003.
- “Introduction to the Epsilon Calculus I.” Calgary Peripatetic Research Group on Logic and Category Theory, University of Calgary, 2003.
- “Hilbert, Bernays, and the History of Logic.” History and Philosophy of Science Research Group, University of Calgary, 2002.
- “Intuitionistic Fuzzy Logic and other Gödel Logics.” Calgary Peripatetic Research Group on Logic and Category Theory, University of Calgary, 2002.

“Instrumentalism in Mathematics.” Philosophy Colloquium, University of California, Berkeley, 1999.

“Finitistic Consistency Proofs.” Working Group on History and Philosophy of Mathematics and Logic, University of California, Berkeley, 1998.

“Completeness before Post: Hilbert and Bernays on Propositional Logic, 1917–18.” Working Group on History and Philosophy of Mathematics and Logic, University of California, Berkeley, 1998.

Teaching and
Supervision

Classes Taught

University of Calgary

Logic I (Phil 279), Fall 2001, Winter 2002, Fall 2002, Winter 2004, Winter 2006, Winter 2009, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2019, Winter 2020, Fall 2020, Winter 2021, Fall 2021. (undergrad).

Philosophy of Logic (Phil 473/671), Fall 2020. (grad).

Philosophy of Mathematics (Phil 567/667), Winter 2005, Winter 2020. (grad).

Logic II (Phil 379), Winter 2003, Fall 2003, Winter 2016, Fall 2016, Fall 2019, Winter 2020, Winter 2021, Fall 2021. (undergrad).

Logic III: Gödel’s Incompleteness Theorems (Phil 479/679.01), Winter 2004, Winter 2007, Fall 2008, Winter 2010, Winter 2012, Winter 2017, Fall 2018. (grad).

How Do We Know? (Phil 274), Fall 2018. (undergrad).

Advanced Topics in Logic: Modal Logic (Phil 579.02/679.02), Winter 2014, Winter 2018, Winter 2024. (grad).

Graduate Proseminar (Phil 603), Fall 2015, Fall 2016, Fall 2017, Fall/Winter 2022/23, Fall 2023, Fall 2024. (grad).

Advanced Topics in Logic: Proof Theory (Phil 579.3/679.4), Winter 2014. (grad).

Modal Logic (Phil 513/679.05), Winter 2003, Fall 2005, Fall 2007, Winter 2013. (grad).

19th and 20th Century Analytic Philosophy (Phil 307), Fall 2001, Fall 2003, Winter 2005, Fall 2008, Winter 2011, Winter 2013. (undergrad).

Paradoxes (Phil 579.01/679.02), Winter 2012. (grad).

Philosophy of Language (Phil 471), Winter 2011. (undergrad).

Carnap (Phil 507/609), Winter 2010. (grad).

Philosophy of Language (Phil 371), Winter 2007, Winter 2009. (undergrad).

Logical Positivism (Phil 407.03), Fall 2005, Fall 2007. (undergrad).

Evidence (Phil 409.02), Winter 2006. (undergrad).

McGill University

Intermediate Logic (Phil 310), Winter 2015. (undergrad).

Stanford University

Logic, Reasoning, and Argumentation (Phil 57), Spring 2001. (undergrad).

Early Analytic Philosophy (Phil 124/224), Spring 2001. (grad).
 Philosophy of Logic (Phil 158/258), Winter 2001. (grad).

University of California, Berkeley

Introduction to Logic (Phil 12A), Summer 1998. (undergrad).

Technische Universität Wien, Vienna

Epsilon Calculus, Summer 2009. (grad).
 Intuitionistic Logic, Summer 2000. (grad).
 Theories of Truth, Summer 1999. (grad).
 Logics of Knowledge and Belief, Summer 1998. (grad).
 Computability and Models of Arithmetic, Summer 1997. (grad).
 Proof Theory for Computer Scientists, Summer 1995. (grad).

Students

Supervisor

Mohamar Rios Flores (MSc in Pure Mathematics; co-supervisor: Kristine Bauer),
 “Counterfactual Logic: A Modern Overview,” 2024
 Amirhossein Kiani (PhD), “Ramification, Structure and Ground,” 2023
 Husna Farooqui (MA), “The Curry-Howard Correspondence,” 2021
 Joseph McDonald (MA), “A Categorical Extension of the Curry-Howard Isomorphism,”
 2019
 Aaron Thomas-Bolduc (PhD), “New Directions for Neologicism,” 2018
 Sam Burns (MA), “Hypersequent Calculi for Modal Logics,” 2018
 Teppei Hayashi (PhD), “The Continuum: History, Mathematics, and Philosophy,” 2017
 Zahra Ahmadianhosseini (MA), “Logical Models of Fallible Knowledge,” 2017
 Zesen Qian (Mitacs Summer Intern), “The Open Logic Project,” 2016
 Andre Curtis-Trudel (BA Honours), “Explication, Open-Texture, and Church’s Thesis,”
 2016
 Eamon Darnell (BA Honours), “Gödel vs. Mechanism,” 2013
 Gillman Payette (PhD), “A Study in the Logic of Institutions,” 2012
 Teresa Kouri Kissel (MA), “Indiscernibility and Mathematical Structuralism,” 2010
 Taylor Scobbie (BA Honours), “Contrast and Contrastivism: The Logic of Contrastive
 Knowledge,” 2010
 Steve Coyne (BA Honours), “Belief-Theoretic Foundations for Conversation,” 2009
 Rafał Urbaniak (PhD), “Leśniewski’s Systems of Logic and Mereology,” 2008
 Julianne Chung (BA Honours), “The Paradox of Knowability,” 2007
 Phil Serchuk (BA Honours), “Fuzzy Logic and Vagueness,” 2006

External Examiner

- Romain Büchi (Dr. phil. in Philosophy, University of Zurich; supervisor: Katia Saporiti),
 “Über Variablen und Entscheidbarkeit,” 2023
- Nicola Bonatti (MPhil in Philosophy, University of St. Andrews; supervisor: Francesco Berto),
 “The Meaning of Quantifiers and the Epsilon Calculus,” 2020
- Long Chen (PhD in Philosophy, King’s College London; supervisor: Michael Beaney),
 “Interpreting Gödel: Historical and Philosophical Perspectives,” 2017
- Hassan Massoud (PhD in Philosophy, University of Alberta; supervisor: Jeff Pelletier, Allen Hazen),
 “The Epistemology of Natural Deduction,” 2015
- Toby Meadows (PhD in Philosophy, University of Melbourne; supervisor: Greg Restall),
 “Modality without Metaphysics,” 2011

Committee Member

- Yudi Huang (MA in Philosophy; supervisor: David Liebesman), “The Problem of
 Hyperintensionality: A Truthmaker Approach,” 2023
- Ananya Chatteraj (PhD in Philosophy; supervisor: Ken Waters), “What is Data?,” 2023
- Zain Rizvi (PhD in Computer Science; supervisor: Philip Fong), “The SUDO Framework
 for Data Organization And Efficient Query Authorization For NoSQL Databases,”
 2020
- Brent Odland (MA in Philosophy; supervisor: Mark Migotti), “[Peirce’s Triadic Logic:
 Continuity, Modality, and L](#),” 2020
- Prashant Kumar (MSc in Computer Science; supervisor: Robin Cockett), “Implementation
 of Message Passing Language,” 2018
- Chad Mitchell Nester (MSc in Computer Science; supervisor: Robin Cockett), “Turing
 Categories and Realizability,” 2017
- Mohammad Jafari (PhD in Computer Science; supervisor: Reyhaneh Safavi-Naini),
 “Modelling and Enforcing Purpose in Privacy Policies,” 2013
- Jayalakshmi Balasubramaniam (MSc in Computer Science; supervisor: Philip Fong), “A
 Novel Approach to White-Box Policy Analysis,” 2013
- Joseph Windsor (MA in Linguistics; supervisor: Darin Flynn), “When Nothing Exists: The
 Role of Zero in the Prosodic Hierarchy,” 2012
- Cheng Xu (MSc in Computer Science; supervisor: Philip Fong), “The Specification and
 Compilation of Obligation Policies for Program Monitoring,” 2011
- Julia Zochodne (BA Honours; supervisor: Nicole Wyatt), “What do We do with a Logic
 that is Formal?,” 2009
- Steven Yuen (MSc in Computer Science; supervisor: Lisa Higham), “Formal Models and
 Implementations of Distributed Shared Memory,” 2009
- Jennifer Runke (PhD in Philosophy; supervisor: Marc Ereshefsky), “Towards an Adequate
 Theory of Scientific Metaphor,” 2008

- Jillian Hartman (MA in Creative Writing; supervisor: Susan Rudy, Tom Wayman),
 “Scrabbalah,” 2005
- Craig Pastro (MSc in Computer Science; supervisor: Robin Cockett), “ $\Sigma\Pi$ -Polycategories,
 Linear Logic, and Process Semantics,” 2005
- Min Zeng (MSc in Computer Science; supervisor: Robin Cockett), “An Implementation of
 Charity,” 2003
- Clement Loo (BA Honours; supervisor: Marc Ereshefsky), “The Role of Evolution in
 Behavior,” 2003

Teaching Awards

- Teaching Excellence Award, Honorable Mention, Student’s Union, University of Calgary,
 2020.
- Great Supervisor Award, Faculty of Graduate Studies, University of Calgary, 2019.

- Grants Discovery Grant, Natural Sciences and Engineering Research Council of Canada
 (NSERC), “Proof Theory and Logic in Computer Science,” CAD 161,750,
 2023–2028.
- Insight Development Grant, Social Sciences and Humanities Research Council of Canada
 (SSHRC), “Toward a Philosophy of Programming Languages,” CAD 45,378,
 2020–2023.
- Teaching Activity Grant, Faculty of Arts, University of Calgary, “How Do We Know?,”
 CAD 1,000, 2018 (Co-applicant: Megan Delehanty).
- Scholarship of Teaching and Learning Grant, University of Calgary, “Logic for the 21st
 Century,” CAD 36,820, 2016–2017 (Co-applicants: Nicole Wyatt and Aaron
 Thomas-Bolduc).
- Teaching and Learning Practice Grant, University of Calgary, “The Open Logic Project,”
 CAD 7,500, 2015–2016 (Co-applicant: Nicole Wyatt).
- Alberta Open Educational Resources Initiative, “The Open Logic Project,” CAD 43,000,
 2015.
- Calgary Institute for the Humanities Annual Fellowship, teaching release, 2013–2014.
- Insight Grant, Social Sciences and Humanities Research Council of Canada (SSHRC),
 “The Collected Works of Rudolf Carnap (Phase 2),” CAD 133,680, 2012–2017
 (Co-applicant: Dirk Schlimm, McGill University).
- Visiting Scholar Grant, University of Calgary Research Grants Committee, “Nuel Belnap,
 University of Pittsburgh,” CAD 1,275, 2009.
- Standard Research Grant, Social Sciences and Humanities Research Council of Canada
 (SSHRC), “The Collected Works of Rudolf Carnap,” CAD 64,900, 2008–2011
 (Co-applicant: Dirk Schlimm, McGill University).
- Discovery Grant, Natural Sciences and Engineering Research Council of Canada
 (NSERC), “Computational Aspects of the Epsilon Calculus,” CAD 70,000,
 2007–2012.

Conference Grant, University of Calgary Research Grants Committee, “Mathematical Methods in Philosophy,” CAD 6,000, 2006.

Calgary Institute for the Humanities Annual Fellowship, teaching release, 2006–2007.

Short Term Project Grant, University of Calgary Research Grants Committee, “The Essential Carnap,” CAD 5,940, 2006.

Travel Grant, University of Calgary Research Grants Committee, “International Symposium on Multiple Valued Logic, Singapore,” CAD 1,500, 2006.

Visiting Scholar Grant, University of Calgary Research Grants Committee, “John P. Burgess, Princeton University,” CAD 1,300, 2004.

Visiting Scholar Grant, University of Calgary Research Grants Committee, “William W. Tait, University of Chicago,” CAD 1,150, 2004.

Standard Research Grant, Social Sciences and Humanities Research Council of Canada (SSHRC), “The History of Logical Metatheory, 1900–1940,” CAD 68,200, 2004–2007.

Discovery Grant, Natural Sciences and Engineering Research Council of Canada (NSERC), “Gödel Logics: Foundations and Applications in Computer Science,” CAD 38,000, 2003–2007.

Canadian Hunter Young Innovator Award, University of Calgary, “Gödel Logics: Foundations and Applications in Computer Science,” CAD 20,000, 2003.

Travel Grant, University of Calgary Research Grants Committee, “International Symposium on Multiple Valued Logic, Tokyo, May 2003,” CAD 1,500, 2003.

Professional Development Grant, Faculty of Humanities, CAD 2,000, 2003.

Visiting Scholar Grant, University of Calgary Research Grants Committee, “Matthias Baaz, Technische Universität Wien,” CAD 1,850, 2002.

Professional Development Grant, Faculty of Humanities, CAD 2,000, 2002.

Starter Grant, University of Calgary Research Grants Committee, “The Golden Age of Logic: The Development of Logical Metatheory,” CAD 10,000, 2002–2003.

Professional Development Grant, Faculty of Humanities, CAD 2,000, 2001.

Research Excellence Envelope Grant, University of Calgary, CAD 15,000, 2001–2002.

Service *Department of Philosophy, University of Calgary*

Graduate Program Director. 2015–2018, 2022–2025.

Graduate Program Committee, Chair. 2015–2018, 2022–2025.

Head’s Advisory Committee, Member. 2013–2014, 2015–2018, 2022–2025.

Committee on Diversity and Climate, Member. 2015–2018, 2023–2025.

Timetable Committee, Member. 2023–2025.

Headship Selection Committee. 2023.

Committee on Equity, Diversity and Inclusion, Chair. 2020–2023.

Ad-hoc Committee on Online Learning, Member. 2020.

Undergraduate Program Committee, Member. 2019–2021.

Field of Study Exam Standing Committee (Logic and Language), Member. 2015–2018.

Preliminary Exam Standing Committee (Logic and Language), Chair. 2003–2004, 2008–2014.
 Graduate Program Committee, Member. 2002–2004, 2005–2006, 2009–2013.
 Hiring Committee (Logic and Philosophy of Science), Member. 2012.
 Speaker's Committee, Chair. 2008–2011.
 Hiring Committee (Logic and Philosophy of Science Postdoc), Member. 2010.
 Speaker's Committee, Member. 2005.
 Hiring Committee (Logic), Member. 2005–2006.
 Placement Director. 2002–2004, 2005, 2009.
 History and Philosophy of Science Programs, Co-Director. 2003–2004, 2005–2006.
 Hiring Committee (Epistemology), Member. 2005–2006.
 Webmaster. 2001–2008.
 Hiring Committee (Philosophy of Science), Member. 2004.
 Ad Hoc Committee on History and Philosophy of Science Undergraduate Programs, Chair. 2002–2003.
 Ad Hoc Committee on Department Self-Assessment Exercise, Member. 2002.

University of Calgary

Pacific Institute for the Mathematical Sciences, Calgary Site Steering Committee. 2016–.
 Calgary Mathematics and Philosophy Lecture Series, Department of Philosophy and Pacific Institute for the Mathematical Sciences, Organizer. 2015–.
 Institute for Quantum Science and Technology, Council. 2010–.
 Calgary Peripatetic Research Group on Logic and Category Theory, Co-organizer. 2001–.
 Department of Physics and Astronomy, Hiring Committee (High Energy Physics), Member. 2023.
 Faculty of Graduate Studies, SSHRC Doctoral Adjudication Committee, Member. 2021.
 Department of Mathematics and Statistics, Hiring Committee (Quantum Information), Member. 2020.
 Calgary Institute for the Humanities, Executive Council. 2016–2021.
 Faculty of Graduate Studies, Awards Oversight Committee. 2016–2018.
 Faculty of Arts, Graduate Academic Review Committee, Vice Chair. 2015–2018.
 VP Teaching and Learning, Open Educational Resources Working Group. 2016–2018.
 Faculty of Arts, Faculty Merit Committee. 2017.
 Taylor Institute for Teaching and Learning, Advisory Board to the Academic Director. 2016–2017.
 Faculty of Arts, Tenure and Promotion Committee, Dean's Appointee. 2016.
 Faculty of Arts, Executive Committee. 2011–2013.
 Faculty of Humanities, Sabbatical Fellowship Committee. 2008–2009.
 Faculty of Graduate Studies, Graduate Scholarships Committee. 2004–2005.
 Department of Religious Studies, Headship Selection Committee. 2004.
 Faculty of Humanities, Representative to Faculty of Science. 2003–2005.

Faculty of Humanities, Promotions Committee, Observer (Dean's Appointee). 2004.
 Faculty of Humanities, Executive Committee, Member. 2001–2004.

University of California, Berkeley

History and Philosophy of Logic, Mathematics, and Science Townsend Center Working Group, Organizer. 1998–2001.

Graduate Council, Advisory Committee on Graduate Student Instructor Affairs, Student Representative. 1997–1999.

Graduate Assembly, Committee on the Educational Improvement Grant Program, Member. 1997–1998.

Logic and Methodology of Science Graduate Student Association, President. 1995–1998.

Logic and Methodology of Science Graduate Student Association, Graduate Assembly Delegate. 1995–1998.

Academic Senate, Advisory Committee on International Education, Student Representative. 1995–1996.

Professional Organizations

Philosophy of Mathematics Association, Vice President. 2022–2025.

Philosophy of Mathematics Association, President. 2019–2022.

Canadian Society for History and Philosophy of Mathematics, Council Member. 2018–2022.

Special Interest Group on Logic and Computation of the ACM, Education Committee, Member. 2014–.

Kurt Gödel Society, Executive Board, Member. 1992–94, 2005–.

Association for Symbolic Logic, Membership Committee, Member. 2016–2021.

Society for the Study of the History of Analytic Philosophy, Secretary. 2015–2019.

Association for Symbolic Logic, Website Committee, Member. 2014–2018.

Association for Symbolic Logic, Nominating Committee, Member. 2015–2016.

Philosophy of Mathematics Association, Executive Board, Member. 2015–2016.

Philosophy of Mathematics Association, Nominating Committee, Member. 2014–2016.

Society for the Study of the History of Analytic Philosophy, Board Member. 2009–2015.

Association for Symbolic Logic, Committee on Logic Education, Chair. 2009–2011.

Canadian Society for the History and Philosophy of Science, Advisory Board, Member. 2008–2011.

Association for Symbolic Logic, Council, Elected Member. 2008–2010.

Association for Symbolic Logic, Committee on Logic Education, Member. 2002–2008.

Conferences

Workshop on Logic, Language, and Information WoLLIC 2024, Program Committee Member. 2024.

- International Congress of Logic, Methodology and Philosophy of Science and Technology CLMPST 2023, Program Committee Member. 2023.
- Winter Meeting of the Association for Symbolic Logic, San Francisco, Program Committee Member. 2023.
- Indian Conference on Logic and its Applications ICLA 2019, Program Committee Member. 2019.
- Western Canadian Philosophical Association WCPA, University of Calgary, Organizer. 2018.
- Second-Order Quantifier Elimination SOQE 2017, ESSLLI, Program Committee Member. 2017.
- Quantifiers and Determiners QUAD 2017, ESSLLI, Program Committee Member. 2017.
- Annual Meeting of the Society for the History of Analytic Philosophy SSHAP, University of Calgary, Organizer. 2017.
- Spring Meeting of the Association for Symbolic Logic, Seattle, Program Committee Chair. 2017.
- Annual Meeting of the Canadian Society for History and Philosophy of Mathematics CSHPM, University of Calgary, Local Organizer. 2016.
- Annual Meeting of the Association for Symbolic Logic, University of Connecticut, Special Session Organizer. 2016.
- Summer Program for Diversity in Logic, University of Massachusetts, Dartmouth, Advisory Board Member.
- Epsilon 2015: Hilbert's Epsilon and Tau in Logic, Informatics and Linguistics, Program Committee Member. 2015.
- Pacific Division of the American Philosophical Association, Program Committee Member. 2012–2015.
- Vienna Summer of Logic, Organizing Committee Member. 2014.
- Logic, Algebra, and Truth Degrees LATD 2014, Program Committee Member. 2014.
- Logic Colloquium: European Summer Meeting of the Association for Symbolic Logic, Vienna, Program Committee Member. 2014.
- Logic, Algebra, and Truth Degrees LATD 2013, Program Committee Member. 2013.
- Third International Congress on Tools for Teaching Logic, Program Committee Member. 2011.
- Carnap and the Legacy of Logical Empiricism, Institute Vienna Circle, Vienna, Organizer. 2010.
- Computability in Europe CiE, Program Committee Member. 2009.
- Logic Miniconference (Aldo Antonelli, Nuel Belnap, Krister Segerberg), University of Calgary, Organizer. 2009.
- Mathematical Applications in Philosophy, Banff International Research Station, Organizer. 2007.
- Uncertainty: Reasoning about Vagueness and Probability, Program Committee, Member. 2006.

Logic Miniconference (John Burgess, Kit Fine, Alasdair Urquhart), University of Calgary, Organizer. 2005.
 Annual Congress of the Canadian Philosophical Association, Program Committee Member. 2005.
 Spring Meeting of the Association for Symbolic Logic, Program Committee Member. 2005.
 Stanford-Berkeley Graduate Philosophy Conference, Organizing Committee Member. 1996–1998.
 Fifth Kurt Gödel Colloquium, Vienna, Organizing Committee Member. 1997.
 Lecture Series “Collegium Logicum”, Organizing Committee Chair. 1992–1994.
 Workshop on Proof Theory, Complexity, Metamathematics, Vienna, Organizing Committee Chair. 1994.
 Third Kurt Gödel Colloquium, Brno, Organizing Committee Member. 1993.

Reviewer

Presses: Blackwell, Cambridge University Press, Oxford University Press, Princeton University Press, Springer.

Journals: *Archive for Mathematical Logic*, *American Philosophical Quarterly*, *Australian Journal of Logic*, *Bulletin of Symbolic Logic*, *Dialectica*, *Ergo*, *Erkenntnis*, *European Journal for Philosophy of Science*, *Historia Mathematica*, *History and Philosophy of Logic*, *Journal of Applied Logic*, *Journal Philosophical Logic*, *Journal of Symbolic Logic*, *Journal of Applied Non-Classical Logics*, *Journal of Humanistic Mathematics*, *Journal of Logic and Computation*, *Journal of Logic, Language, and Information*, *Logic Journal of the IGPL*, *Logic and Logical Philosophy*, *Journal for the History of Analytic Philosophy*, *Mathematical Logic Quarterly*, *Mind*, *Notre Dame Journal of Formal Logic*, *Philosopher’s Imprint*, *Philosophia Mathematica*, *Philosophical Transactions of the Royal Society A*, *Review of Symbolic Logic*, *Studia Logica*, *Studies in History and Philosophy of Science*, *Synthese*, *Theoretical Computer Science*.

Conferences: Workshop on Logic, Language, and Information 2024; International Congress of Logic, Methodology and Philosophy of Science and Technology 2023; Indian Conference on Logic and its Applications 2019; Logica 2018; Western Canadian Philosophy Association 2002, 2004, 2016, 2018; Canadian Philosophical Association 2003, 2006, 2008, 2017; Workshops on Computer Science Logic 1994, 1995, 2002, 2017; Logic in Computer Science 2015; Computability in Europe 2008; Logic for Programming and Automated Reasoning 1992, 2005, 2007; World Congress on Universal Logic 2005; Society for Exact Philosophy 2005; International Joint Conference on Automated Reasoning 2004; International Symposia on Multiple Valued Logic 1994, 1998; Kurt Gödel Colloquia 1993, 1997; International Conference on Automated Deduction 1994, 2004; European Conference on Artificial Intelligence 1994; Workshop on Tableau-based Deduction, 1993, 2021.

Granting Agencies: Austrian Science Fund, Fonds Québécois de Recherche sur la Société et Culture, Natural Sciences and Engineering Research Council of Canada NSERC,

Research Foundation Flanders, Social Sciences and Humanities Research Council of Canada SSHRC, Deutsche Forschungsgemeinschaft, Canada Council for the Arts, Iceland Research Fund, Israel Science Foundation, Nederlands Organization for Scientific Research, Swiss National Science Foundation, National Science Center Poland.