Sean D. Cox

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EMPLOYMENT

- **Professor**, Department of Mathematics and Statistics, Virginia Commonwealth University, July 2024–present.
- **Associate Professor**, Department of Mathematics and Applied Mathematics, VCU, July 2018–June 2024. Associate Chair and Director of Undergraduate Studies, Summer 2022–Summer 2024.
- **Assistant Professor**, Department of Mathematics and Applied Mathematics, VCU, August 2012–June 2018.
- **Akademischer Rat auf Zeit** (postdoctoral position), Institute for Mathematical Logic and Basic Research, University of Münster, Germany, November 2009–May 2012. Supervisor: Ralf Schindler.
- **Economist**, Regional Economic Research, San Diego, CA, 2001–2002; Triangle Economic Research, Durham, NC, 1999–2001.

EDUCATION

- **Ph.D. in Mathematics**, University of California, Irvine, 2009. Dissertation: *Covering theorems for the core model, with applications*. Advisor: Martin Zeman. Received the department's *Kovalevsky Outstanding PhD Thesis Award*.
- **B.A. in Economics** (minor in English), North Carolina State University, 1999.

GRANTS, AWARDS, AND FELLOWSHIPS

Research grants:

- NSF grant DMS-2154141 (PI), *Approximation theory and elementary submodels*, September 2022–August 2027, $180,000.
- VCU Seed Award (PI), *How Robustly Can You Predict the Future?*, July 2021–June 2023, $5,000.
- VCU Presidential Research Quest Fund (PI; co-PIs Brent Cody and Monroe Eskew), *Open problems in the foundations of mathematics*, July 2016–December 2017, $40,000.
- Simons Foundation Collaboration Grant for Mathematicians (PI), *Forcing and the nonstationary ideal*, 2014–2019, $35,000.

Fellowships and awards:

- Fields Postdoctoral Fellowship, *Thematic Program on Forcing and its Applications*, Fields Institute, July–December 2012 (on leave from VCU, Fall 2012).
- *Kovalevsky Outstanding PhD Thesis Award*, UC Irvine Mathematics Department, 2008–2009.
- *Von Neumann Award for Outstanding Performance as a Graduate Student*, UC Irvine Mathematics Department, 2006–2007.
- UC Irvine Mathematics Department fellowships, Winter 2007, Summer 2007, and Spring 2008.

Travel and visitor grants:

- European Science Foundation: research visit to Matteo Viale, Torino, Italy, November 2011; Third European Set Theory Conference, July 2011.
- 2009 Young Set Theory Workshop, Barcelona, Spain; NSF/ASL travel grant for the 2009 Annual Meeting of the Association for Symbolic Logic.

MANUSCRIPTS UNDER REVIEW

- *Kaplansky classes and stability*. arXiv:2608.00905.
- (with Kamsma and Rosický) *Cellular generation revisited*. arXiv:2606.11030.
- (with Asperó, Karagila, and Weiss) *The κ-Strongly Proper Forcing Axiom*.

JOURNAL ARTICLES

(* student coauthor)

- *Approximation Theory and Elementary Submodels*. Bull. Symb. Log. (2026), to appear.
- (with Feigert, Kamsma, Mazari-Armida, and Rosický) *Cofibrant generation of pure monomorphisms in presheaf categories*. Adv. Math. 497 (2026), Paper No. 111010.
- *The flat cover conjecture for monoid acts*. J. Lond. Math. Soc. (2) 112 (2025), no. 6, Paper No. e70404.
- *Vopěnka's principle, maximum deconstructibility, and singly-generated torsion classes*. Appl. Categ. Structures 33 (2025), no. 3, Paper No. 19, 8 pp.
- (with Aldi, Buffkin II*, and Cline*) *Sparse systems of functions and quasi-analytic classes*. Fund. Math. 270 (2025), no. 2, 99–111.
- (with Poveda and Trlifaj) *Approximation properties of torsion classes*. Bull. Lond. Math. Soc. 56 (2024), no. 12, 3819–3828.
- (with Rosický) *Fibrantly generated weak factorization systems*. Rend. Semin. Mat. Univ. Padova 152 (2024), 133–144.
- (with Cody and Lee*) *Sparse analytic systems*. Forum Math. Sigma 11 (2023), Paper No. e58, 9 pp.
- (with Fuchs) *The diagonal strong reflection principle and its fragments*. J. Symb. Log. 88 (2023), no. 3, 1281–1309.
- *Filtration games and potentially projective modules*. Fund. Math. 260 (2023), no. 3, 199–232.
- (with Elpers*) *How robustly can you predict the future?* Canad. J. Math. 75 (2023), no. 5, 1493–1515.
- (with Eskew) *Compactness versus hugeness at successor cardinals*. J. Math. Log. 23 (2023), no. 1, Paper No. 2250016, 16 pp.
- (with Lücke) *Forcing axioms and the complexity of non-stationary ideals*. Monatsh. Math. 199 (2022), no. 1, 45–84.
- *Salce's problem on cotorsion pairs is undecidable*. Bull. Lond. Math. Soc. 54 (2022), no. 4, 1363–1374.
- *Maximum deconstructibility in module categories*. J. Pure Appl. Algebra 226 (2022), no. 5, Paper No. 106934.
- *Forcing axioms, approachability, and stationary set reflection*. J. Symb. Log. 86 (2021), no. 2, 499–530.
- (with Sakai) *A variant of Shelah's characterization of Strong Chang's conjecture*. MLQ Math. Log. Q. 65 (2019), no. 2, 251–257.
- (with Eskew) *Strongly proper forcing and some problems of Foreman*. Trans. Amer. Math. Soc. 371 (2019), no. 7, 5039–5068.
- *Layered posets and Kunen's universal collapse*. Notre Dame J. Form. Log. 60 (2019), no. 1, 27–60.
- (with Krueger) *Namba forcing, weak approximation, and guessing*. J. Symb. Log. 83 (2018), no. 4, 1539–1565.
- *Chang's conjecture and semiproperness of nonreasonable posets*. Monatsh. Math. 187 (2018), no. 4, 617–633.
- *On the universality of the nonstationary ideal*. MLQ Math. Log. Q. 64 (2018), no. 1-2, 103–117.
- (with Adolf and Welch) *Lower consistency bounds for mutual stationarity with divergent uncountable cofinalities*. Israel J. Math. 228 (2018), no. 1, 1–19.
- (with Krueger) *Indestructible guessing models and the continuum*. Fund. Math. 239 (2017), no. 3, 221–258.
- (with Lücke) *Characterizing large cardinals in terms of layered posets*. Ann. Pure Appl. Logic 168 (2017), no. 5, 1112–1131.
- (with Krueger) *Quotients of strongly proper forcings and guessing models*. J. Symb. Log. 81 (2016), no. 1,

264–283.
- (with Cody) *Indestructibility of generically strong cardinals*. Fund. Math. 232 (2016), no. 2, 131–149.
- *Prevalence of Generic Laver Diamond*. Proc. Amer. Math. Soc. 143 (2015), no. 9, 4045–4058.
- (with Zeman) *Ideal projections and forcing projections*. J. Symb. Log. 79 (2014), no. 4, 1247–1285.
- (with Viale) *Martin's Maximum and tower forcing*. Israel J. Math. 197 (2013), no. 1, 347–376.
- *The Diagonal Reflection Principle*. Proc. Amer. Math. Soc. 140 (2012), no. 8, 2893–2902.
- *PFA and ideals on ω_2 whose associated forcings are proper*. Notre Dame J. Form. Log. 53 (2012), no. 3, 397–412.
- *Consistency strength of higher Chang's Conjecture, without CH*. Arch. Math. Logic 50 (2011), no. 7, 759–775.
- *Nonregular ultrafilters on ω_2*. J. Symb. Log. 76 (2011), no. 3, 827–845.
- *Covering theorems for the core model, and an application to stationary set reflection*. Ann. Pure Appl. Logic 161 (2009), no. 1, 66–93.

SURVEY AND CONFERENCE PROCEEDINGS

- *Adjoining only the things you want: a survey of Strong Chang's Conjecture and related topics*. To appear in Research Trends in Contemporary Logic. arXiv:1908.05334.
- *The $\Pi^1_1 \downarrow$ Löwenheim-Skolem-Tarski property of Stationary Logic*. RIMS Kokyuroku No. 2164 (2020), 108–116.
- (with Sakai) *Martin's Maximum and the Diagonal Reflection Principle*. RIMS Kokyuroku No. 2141 (2019), 29–36.

PRESENTATIONS

Tutorials and lecture series:

- *Almost everywhere is all you need*. BLAST conference tutorial (two sessions), Waco, TX, May 2026.
- *Graduate summer school in set theory: large cardinals, inner models, and fine structure*. Five 1.5-hour lectures, Irvine, CA, June 25–29, 2012.

Invited talks:

- *Almost everywhere is all you need*. Special Session on Commutative Algebra, 2026 Spring Southeastern Sectional Meeting of the AMS, Savannah, GA, March 28, 2026.
- *Almost everywhere is all you need*. Menachem Magidor 80th birthday conference, Irvine, CA, February 2026.
- *Almost-everywhere effective unions of $\mathcal{M}$-subobjects*. Masaryk University Algebra Seminar, May 21, 2025.
- *The Flat Cover Conjecture in non-additive settings*. Charles University Algebra Seminar, May 19, 2025.
- *Maximum Deconstructibility, Vopěnka's Principle, and singly-generated torsion classes*. Barcelona Set Theory Seminar, March 2025.
- *A new tool for detecting cofibrant generation*. University of Virginia Topology Seminar, February 2025.
- *Sparse systems of Denjoy-Carleman classes*. Set theory and analysis seminar, Czech Academy of Sciences, Prague, Czech Republic, May 7, 2024.
- *Set-theoretic tools for approximation theory*. Charles University Algebra Seminar, Prague, Czech Republic, May 6, 2024.
- *Sparse systems, CH, and Denjoy-Carleman classes*. Rutgers Logic Seminar, March 4, 2024.
- *Deconstructibility and elementary submodels*. Cornell Logic Seminar, October 20, 2023.
- *Predicting non-continuous functions*. XVII International Luminy Workshop in Set Theory, Luminy, France, October 12, 2023.
- *Predicting non-continuous functions*. Harvard CMSA Colloquium, September 25, 2023.
- *On the universality of the nonstationary ideal*. Irvine conference on inner model theory, July 2023.

- *Predicting non-continuous functions.* Workshop on the Frontiers of Set Theory, Fields Institute, Toronto, June 2023.
- *Elementary submodels, deconstructibility, and Salce's Problem.* Miniworkshop on set-theoretic methods in module theory and homological algebra, Fields Institute, Toronto, May 2023.
- *How robustly can you predict the future?* Charles University Algebra Seminar, March 2023.
- *Homological algebra, elementary submodels, and stationary logic.* Bristol (UK) Logic and Set Theory Seminar, November 1, 2022.
- *Homological algebra, elementary submodels, and stationary logic.* ESI Set Theory Workshop, Vienna, Austria, July 2022.
- *Set theory and deconstructibility in homological algebra.* 5th Münster conference on inner model theory, Münster, Germany, June 2022.
- *Homological algebra, elementary submodels, and stationary logic.* Barcelona Set Theory Seminar, November 3, 2021.
- *Vopěnka's Principle and completeness of cotorsion pairs.* Charles University Algebra Seminar, Prague, Czech Republic, March 2021.
- *Gorenstein Homological Algebra and elementary submodels.* University of Illinois Chicago Logic Seminar, February 2021.
- *Martin's Maximum and the Diagonal Reflection Principle.* University of Bonn, Germany, March 2019.
- *Martin's Maximum and the Diagonal Reflection Principle.* CUNY Set Theory Seminar, February 2019.
- *Some problems related to internal approachability.* RIMS Workshop on Axiomatic set theory and its applications, Kyoto, Japan, November 5–8, 2018.
- *Forcing axioms, approachability, and stationary reflection.* Special Session on Large Cardinals and Combinatorial Set Theory, AMS Sectional Meeting, Ann Arbor, Michigan, October 2018.
- *Reflection Principles and Strong Chang's Conjecture.* 1st Girona conference on inner model theory, Girona, Catalonia, July 16–27, 2018.
- *Semiproperness of nonreasonable posets.* UC Irvine Logic Seminar, January 8, 2018.
- *Strong Chang's Conjecture and semiproperness of nonreasonable posets.* Rutgers Logic Seminar, May 2017.
- *Layered posets, weak compactness, and Kunen's universal collapse.* Set Theory special session, North American Annual Meeting of the Association for Symbolic Logic, May 2016.
- *Layered posets, weak compactness, and Kunen's universal collapse.* University of Turin Logic Seminar, March 2016.
- *Indestructible guessing models.* University of Illinois Chicago Logic Seminar, February 2016.
- *Guessing models.* UC Irvine Logic Seminar, January 2016.
- *Layered partial orders.* CUNY Set Theory Seminar, October 2015.
- *Quotients of strongly proper posets, and related topics.* Forcing and its Applications Retrospective Workshop, Fields Institute, March 2015.
- *Lifting behavior and antichain structure of ideal quotients.* Millican Colloquium, University of North Texas, April 2014.
- *Is there a Truth Calculator for all of mathematics?* Mathematics Colloquium (expository talk), Washington and Lee University, November 2013.
- *Forcing Axioms and the Baire Category Theorem.* Seminar in Operator Theory and Operator Algebras, University of Virginia, November 2013.
- *Presaturation and bounding by canonical functions on* NS *restricted to* S^2_1. Special Session on Set Theory and Its Applications, Fall 2013 Sectional Meeting of the American Mathematical Society, Louisville, Kentucky, October 2013.
- *Some consistency results about saturated ideals.* Special session on Set Theory, 2013 North American Annual Meeting of the Association for Symbolic Logic, Waterloo, Canada, May 2013.

- *Generalized Laver Diamond.* Special Session on Set Theory and Its Applications, Spring 2013 Southeastern Sectional Meeting of the American Mathematical Society, Oxford, Mississippi, February 2013.
- *Coding reals by clubs in* $[\omega_2]^\omega$. UC Irvine Logic Seminar, October 2012.
- *Some topics related to bounding by canonical functions.* Young Set Theory Workshop, Luminy, France, May 2012.
- *Ideal projections as forcing projections.* Canadian Mathematical Society Winter Meeting, December 2011.
- *Ideal projections as forcing projections.* Logic seminar, University of Torino, Italy, November 2011.
- *Compactness and tower forcing.* UC Irvine Logic Seminar, October 2011.
- *The Diagonal Reflection Principle and well-determined generic ultrapowers.* UC Irvine Logic Seminar (two 2-hour sessions), September–October 2011.
- *Martin's Maximum and limitations on presaturated towers.* University of Colorado Boulder Logic Seminar, September 2011.
- *The tree property and elementary embeddings.* Graduate Colloquium, University of Denver Mathematics Department, September 2011.
- *Forcing axioms and generic ultrapowers with critical point* ω_2. Carnegie Mellon Logic Seminar, March 2011.
- *Diagonal Stationary Reflection and Generic Ultrapowers.* Cornell University Logic Seminar, February 2011.
- *Diagonal Stationary Reflection and Generic Ultrapowers.* 2011 Mid-Atlantic Mathematical Logic Seminar, Harvard University, February 2011.
- *The Diagonal Reflection Principle.* Torino set theory workshop, Italy, November 2010.
- *Natural ideals under PFA.* Special Session on Large Cardinals and the Continuum, 2010 Fall Western Section Meeting of the AMS, UCLA, October 2010.
- *Catching slender functions.* UC Irvine Logic Seminar (two 2-hour sessions), October 2010.
- *Nonregularity.* Amsterdam Workshop in Set Theory, June 2010.
- *The Chang Ideal.* Universität Bonn Oberseminar, April 2010.
- *Reflection of stationary sets at small cofinalities.* Workshop on Fine Structure and Inner Model Theory, Oberwolfach, Germany, November 2009.
- *Consistency Strength of Combinatorial Properties at Small Regular Cardinals.* UCLA Logic Colloquium, January 2009.
- *A covering theorem for the core model, with applications.* Special session on set theory, Annual Meeting of the Association for Symbolic Logic, Irvine, CA, March 2008.

Invited talks at meetings that were cancelled:

- *New tools in relative homological algebra.* Special session on Commutative Algebra, AMS Fall Sectional Meeting, Savannah, Georgia, October 2024 (Hurricane Helene).
- *Applications of elementary submodels in homological algebra.* Special Session on Large Cardinals and Forcing Axioms, AMS Sectional Meeting, Charlottesville, Virginia, March 11–13, 2022 (COVID-19).
- ESI Set Theory Workshop, Vienna, Austria, July 6–10, 2020 (COVID-19).
- Mid-Atlantic Mathematical Logic Seminar (MAMLS) Spring Fling meeting, NYC, April 22–24, 2020 (COVID-19).
- Special Session on Forcing and Ramsey Theory, 2020 North American Meeting of the Association for Symbolic Logic, Irvine, CA, March 25–28, 2020 (COVID-19).

Contributed and local talks:

- *A new tool for detecting cofibrant generation.* International Category Theory Conference 2025, Brno, Czech Republic, July 18, 2025.
- *Predicting non-continuous functions.* VCU Analysis, Logic, and Physics Seminar, September 29, 2023.
- *Analytic-invariant predictions and a theorem of Erdős.* RIMS Set Theory Meeting 2022, Kyoto, Japan, October 22, 2022.
- *How robustly can you predict the future?* VCU Analysis, Logic, and Physics Seminar, September 16, 2022.
- *Undecidability of Salce's Problem for abelian groups.* VCU Analysis, Logic, and Physics Seminar, September 10, 2021.
- *Gorenstein Homological Algebra and elementary submodels.* VCU Analysis, Logic, and Physics Seminar, January 29, 2021.
- *Martin's Maximum and reflection properties of Stationary Logic.* RIMS Set Theory and Infinity meeting, Kyoto, Japan, November 2019.
- *The Gale-Stewart Theorem.* VCU Analysis, Logic, and Physics Seminar, September 2019.
- *The Löwenheim-Skolem Theorem and higher order logics.* VCU Analysis, Logic, and Physics Seminar, October 2018.
- *Curiosities in the plane.* VCU Analysis, Logic, and Physics Seminar, April 2018.
- *The Tree Property.* VCU Analysis, Logic, and Physics Seminar, September 2017.
- *Semiproperness of nonreasonable posets.* 6th European Set Theory meeting, Budapest, Hungary, July 2017.
- *The universality of the nonstationary ideal.* VCU Analysis, Logic, and Physics Seminar, March 2017.
- *Filters, ultrafilters, and applications.* VCU Analysis, Logic, and Physics Seminar, November 2016.
- *What do ultrafilters have to do with finite graphs?* VCU Discrete Math Seminar, September 2016.
- *Elementary submodels: the next best thing to circular reasoning.* VCU Analysis, Logic, and Physics Seminar, January 2016.
- *Is there a truth calculator for mathematics?* VCU Honors College Berglund Seminar Series, September 2015.
- *Saturated ideals and regular embeddings of Boolean Algebras.* VCU Analysis, Logic, and Physics Seminar, September 2013.
- *Forcing Axioms and the Baire Category Theorem.* VCU Analysis, Logic, and Physics Seminar, September 2013.
- *Undecidable problems in mathematics.* VCU Honors College Berglund Seminar Series, April 2013.
- *Random Graphs, zero-one laws, and model theory.* VCU Discrete Math Seminar, March 2013.
- *Suslin's Problem.* VCU Analysis, Logic, and Physics Seminar (two sessions), January 2013.
- *Antichain catching at ω_1 versus antichain catching at ω_2.* Toronto Set Theory Seminar, December 2012.
- *Coding reals by clubs in $[\omega_2]^\omega$.* Oberseminar in Logic, University of Münster, April 2012.
- *Compactness properties of the 2nd uncountable cardinal.* MAA Contributed talk session, Joint Mathematics Meetings, Boston, January 2012.
- *Martin's Maximum and Tower Forcing.* ASL Contributed talk session, Joint Mathematics Meetings, Boston, January 2012.
- *Ideal projections as forcing projections.* Oberseminar in Logic, University of Münster, October 2011.
- *Some current research in Set Theory.* Joint presentation, Münster SFB Conference, July 2011.
- *Martin's Maximum and Tower Forcing.* Oberseminar in Logic, University of Münster, June 2011.
- *Forcing axioms and correct models.* Oberseminar in Logic, University of Münster (four 2-hour sessions), December 2010–January 2011.
- *The tree property.* Fall 2010 SoCal-Nev Section Meeting of the MAA, UC Irvine, October 2010.

- *Forcing Axioms and ideals on ω_2.* Colloquium Logicum 2010, Münster, Germany, September 2010.
- *Moore's Map Reflection Principle.* Oberseminar in Logic, University of Münster (four 2-hour sessions), May 2010.
- *Stationary set reflection, square, and covering theorems.* Oberseminar in Logic, University of Münster (four 2-hour sessions), November 2009–January 2010.

COURSES TAUGHT AT VCU

- Math 602 Abstract algebra. Spring 2015.
- Math 601 Abstract algebra. Fall 2014.
- Math 591 Topics course: Filters, ultrafilters, and applications. Spring 2017 (jointly with Brent Cody and Monroe Eskew as part of PeRQ grant).
- Math 591 Topics course: Logic and Mathematical Structures. Spring 2014 (jointly with Brent Cody).
- Math 509 Topology. Fall 2015.
- Math 507 Bridge to Modern Analysis. Fall 2019, Fall 2025.
- Math 502 Abstract Algebra I. Fall 2017.
- Math 492 Independent Studies. Summer 2013, Fall 2014, Spring 2015, Fall 2018, Spring 2020.
- Math 490 Mathematical Expositions. Spring 2014 (jointly with Brent Cody), Spring 2017, Fall 2018.
- Math 407 Advanced Calculus. Fall 2016, Spring 2018, Spring 2019, Spring 2020, Spring 2025.
- Math 401 Introduction to Abstract Algebra. Fall 2017, Fall 2019.
- Math 310 Linear Algebra. Spring 2016.
- Math 307 Multivariate Calculus. Fall 2013, Fall 2015, Spring 2026.
- Math 300 Intro to mathematical reasoning. Spring 2013 (2 sections), Fall 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2018, Spring 2019, Spring 2020, Spring 2021 (2 sections), Spring 2022 (2 sections), Fall 2025, Spring 2026.
- Math 200 Calculus and Analytic Geometry I. Fall 2018, Fall 2021 (2 sections), Fall 2023, Spring 2024, Fall 2024 (2 sections), Fall 2025, Spring 2026, Fall 2026 (2 sections).

THESIS COMMITTEES

- PhD thesis committee, Noah Schoem, University of Illinois Chicago, April 2021.
- PhD thesis defense jury, Rahman Mohammadpour, University of Paris, September 2020.
- Master's thesis committee, Alexander Bradford, VCU, August 2016.
- PhD thesis committee, Giorgio Audrito, University of Turin, Italy, March 2016.
- Master's thesis committee, Alexi Hoeft, VCU, May 2013.
- Master's thesis committee, Owen Puffenberger, VCU, April 2013.

PROFESSIONAL SERVICE

Refereeing and reviewing:

- Referee for *Journal of the European Mathematical Society*, *Transactions of the American Mathematical Society*, *Proceedings of the American Mathematical Society*, *Bulletin of the London Mathematical Society*, *Israel Journal of Mathematics*, *Journal of Mathematical Logic*, *Journal of Symbolic Logic*, *Annals of Pure and Applied Logic*, *Fundamenta Mathematicae*, *Archive for Mathematical Logic*, *Mathematical Logic Quarterly*, *Applied Categorical Structures*, and *Mathematical Intelligencer*.
- Grant proposal reviewer for the National Science Foundation, Israel Science Foundation, Simons Foundation, and Austrian Science Fund.
- Reviewer for *MathSciNet* (the review database of the American Mathematical Society); see "Reviews authored" below.
- Reviewer for internal VCU award programs (Seed, Catalyst, PeRQ).

Conference organization and program committees:

- Organizer, Workshop on Stationary Sets and Algebra 2024, May 2024.
- Program Committee member, 2018–19 ASL Winter Meeting (with the Joint Mathematics Meetings), Baltimore, Maryland, January 2019.
- Co-organizer, *IdealFest* workshop, Virginia Commonwealth University, May 19–20, 2017.
- Co-organizer, *Mid-Atlantic Mathematical Logic Seminar*, Virginia Commonwealth University, April 1–2, 2017.
- Local organizer, *Appalachian Set Theory Workshop*, Virginia Commonwealth University, April 9, 2016.
- Organizer and facilitator, *Graduate Summer School in Set Theory 2015*, UC Irvine, July 6–17, 2015.
- Program Committee member, 2011 and 2013 Young Set Theory Workshops.

Other:

- Wrote the official report of the Workshop on Fine Structure and Inner Model Theory, Oberwolfach, 2009.

REVIEWS AUTHORED

- *Three papers related to the Mitchell order*. Bulletin of Symbolic Logic 23 (2017), no. 1, 110–112.
- *MathSciNet* review of Foreman's "Ideals and generic elementary embeddings" (chapter in the *Handbook of Set Theory*) (MR2768692).
- *MathSciNet* review of Friedman and Lücke, "Large cardinals and definable well-orders, without the GCH" (MR3292806).
- *MathSciNet* review of Hamkins and Johnstone, "Resurrection axioms and uplifting cardinals" (MR3194674).
- Review of the *Fields Institute Distinguished Lecture Series* given by Matthew Foreman (*Fields Notes*, Winter 2013, Volume 12:3).
- *MathSciNet* review of Yasuo Yoshinobu, "Operations, climbability and the proper forcing axiom" (MR3037549).
- *MathSciNet* review of Philipp Lücke, "Σ^1_1-definability at uncountable regular cardinals" (MR2987148).
- *MathSciNet* review of Spencer Unger, "Fragility and indestructibility of the tree property" (MR2945572).
- *MathSciNet* review of Sy-David Friedman, "BPFA and inner models" (MR2857735).
- *MathSciNet* review of Andrew Brooke-Taylor, "Indestructibility of Vopěnka's Principle" (MR2805294).
- *MathSciNet* review of Thilo Weinert, "The Bounded Axiom A Forcing Axiom" (MR2560728).
- *MathSciNet* review of Sy-David Friedman, "Forcings which preserve large cardinals" (MR2752958).
- *MathSciNet* review of Arthur Apter, "Indestructibility, instances of strong compactness, and level by level inequivalence" (MR2726733).

SERVICE TO DEPARTMENT AND UNIVERSITY

University:

- Faculty Senate, Fall 2019–Spring 2022; Fall 2026–

College of Humanities and Sciences:

- Promotion and Tenure Committee, Fall 2026–.
- Panelist, Mentoring Workshop, October 18, 2024.
- Undergraduate Academic Committee, 2013–2014.

Department:

- Associate Chair / Director of Undergraduate Studies, Summer 2022–Summer 2024.
- Executive Committee, Fall 2018–Spring 2024.
- Assessment Committee, 2016–2017, 2024–2025, 2025–2026 (chair).
- Promotion and Tenure peer committees, Fall 2021, Fall 2023, Fall 2024, Fall 2025, Fall 2026.
- Third-year review committees (one as chair), 2018–2019, 2021.
- Undergraduate Affairs Committee, 2014–2015, 2015–2016 (chair), 2016–2017 (Credentials Subcommittee), 2017–2018, 2022–2024.
- Colloquium Committee, 2014–2015, 2024–2025.
- Co-organizer, Analysis, Logic, and Physics Seminar, Spring 2013–Fall 2019, 2024–2025.
- Postdoctoral hiring committee, 2017–2018.
- Majors' Capstone Committee, 2014–2015.
- Hiring committee for department chair, 2013–2014.
- Undergraduate Curriculum Committee, 2012–2013.
- Undergraduate Credentials Committee, 2012–2013.