# CURRICULUM VITAE

#### DAMIR D. DZHAFAROV

### Contact

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## Personal

Date of birth: February 2, 1983.

Place of birth: Prague, Czech Republic. Citizenships: Czech Republic, United States.

# RESEARCH INTERESTS

Mathematical logic and foundations, specifically computability theory, reverse mathematics, effective combinatorics, computable analysis, and interactions of logic with philosophy and cognitive science.

### EMPLOYMENT

## Regular positions.

Associate Professor of Mathematics, University of Connecticut, 2019—present. Affiliate Associate Professor of Philosophy, University of Connecticut, 2019—present. Assistant Professor of Mathematics, University of Connecticut, 2013–2019. NSF Postdoctoral Fellow, University of California, Berkeley, 2012–2013. NSF Visiting Assistant Professor, University of Notre Dame, 2011–2012.

# Visiting positions.

Fulbright Research Scholar, Charles University, Prgue, Fall 2021. Visiting Scholar, Institute Henri Poincare, Paris, February 2020. Visiting Instructor, University of Chicago, Summer 2019. Visiting Postdoctoral Fellow, National University of Singapore, Summer 2011.

#### **EDUCATION**

Ph.D. in Mathematics, University of Chicago, June 2011.

(Advisors: Robert I. Soare, Denis R. Hirschfeldt, Antonio Montalbán.)

M.S. in Mathematics, University of Chicago, June 2006.

B.S. in Mathematics, Purdue University, May 2005.

#### Professional memberships

- 1. American Mathematical Society.
- 2. Jednota českých matematiků a fyziků.
- 3. Association for Symbolic Logic.
- 4. Association for Computability in Europe.
- 5. University of Connecticut Logic Group.
- 6. Connecticut Institute for Brain and Cognitive Science.

# Grants and awards

- 1. U.S. Fulbright Scholar, 2021.
- NSF Focused Research Group Grant DMS-1854355 (PI, 379450 USD), 2019– present.
- 3. Simons Foundation Collaboration Grant for Mathematicians, (PI,  $42\,000$  USD),  $2017{-}2022.$
- 4. Research in Pairs Grants, Mathematisches Forschungsinstitut Oberwolfach, 2016, 2018.
- Connecticut Institute for Brain and Cognitive Science Seed Grants (PI, 16650 USD), 2016, 2017, 2018.
- 6. NSF Grant DMS-1400267 (PI, 150000 USD), 2014-2018.
- 7. NSF US Junior Oberwolfach Fellowship, 2012.
- 8. NSF Grant DMS-1101123 (joint with many researchers, PI: J. Knight, 95 883 USD), 2011–2016.
- NSF Mathematical Sciences Postdoctoral Research Fellowship, DMS-1103974 (PI, 135 000 USD), 2011–2014.
- 10. Lawrence and Josephine Graves Teaching Prize, University of Chicago, 2011.
- Leonardo Melandri Fellowship, Bertinoro International Center for Informatics, 2011.
- 12. Air Force Office of Scientific Research Grant FA9550-09-1-0649 (co-PI, PI: D. Hirschfeldt, 44 000 USD), 2009.
- 13. Highbridge Research Award Runner Up, University of Chicago Department of Mathematics, 2009.
- 14. ASL Travel Grants, 2008, 2010.
- 15. McCormick Research Fellowship, University of Chicago, 2005.
- 16. NSF Graduate Research Fellowship, 2005–2010.
- 17. Michael Golomb Award, Purdue University Department of Mathematics, 2005.
- 18. Phi Beta Kappa, 2004.
- 19. Barry M. Goldwater Scholarship, 2003–2005.

#### POSTDOCTORAL FELLOWS MENTORED

- 1. Eric Astor, University of Connecticut, 2015–2018. (Current position: Software Engineer at Google.)
- Linda Brown Westrick, University of Connecticut, 2014–2018.
  (Current position: Assistant Professor of Mathematics at Pennsylvania State University.)

#### STUDENTS ADVISED AND EXAMINED

# Primary Ph.D. advisor.

- 1. Heidi Benham, University of Connecticut, 2022-present.
- 2. Java Darleen Villano, University of Connecticut, 2022–present. (Jointly advised with Reed Solomon.)
- 3. Andrew DeLapo, University of Connecticut, 2022–present. (Jointly advised with Reed Solomon.)
- Noah Hughes, University of Connecticut, 2016–2021.
  (Current position: Assistant Professor of Mathematics at Winston-Salem State University.)
- David Nichols, University of Connecticut, 2014–2019.
  (Current position: Director of Product Management at Stemify.)

## Associate Ph.D. advisor.

- 1. Waseet Kazmi, University of Connecticut, 2023.
- 2. Teerawat Thewmorakot, University of Connecticut, 2023.
- 3. Daniel Mourad, University of Connecticut, 2023.
- 4. Rachel Stahl, University of Connecticut, 2017.
- 5. Marie Nicholson, University of Connecticut, 2017.
- 6. Caleb Martin, University of Connecticut, 2015.
- 7. Jacobb Suggs, University of Connecticut, 2015.

# Ph.D. examiner.

- 1. Stephen Flood, University of Notre Dame, 2012.
- 2. Quinn Culver, University of Notre Dame, 2011.

# Honors thesis advisor.

1. Neil Dokurno, University of Connecticut, 2017.

# TEACHING

# Graduate courses taught.

- 1. Computability Theory, University of Connecticut, Fall 2024.
- 2. Set Theory, University of Connecticut, Spring 2024.
- 3. Weihrauch Degrees, University of Connecticut, Spring 2023.
- 4. Model Theory, University of Connecticut, Fall 2019.
- 5. Computable Combinatorics, University of Connecticut, Spring 2019.
- 6. Mathematical Logic I, University of Connecticut, Spring 2018.
- 7. Algorithmic Randomness, University of Connecticut, Fall 2016.
- 8. Model Theory, University of Connecticut, Fall 2015.

9. Reverse Mathematics, University of Connecticut, Spring 2014.

# Undergraduate courses taught. '

- 1. Applied Linear Algebra, University of Connecticut, Fall 2024.
- 2. Applied Linear Algebra, University of Connecticut, Fall 2023.
- 3. Introduction to Mathematical Logic, University of Connecticut, Spring 2023.
- 4. Calculus II, Fall 2022.
- 5. Applied Linear Algebra, University of Connecticut, Spring 2022.
- 6. Applied Linear Algebra, University of Connecticut, Fall 2020.
- 7. Transition to Advanced Mathematics, University of Connecticut, Fall 2019.
- 8. Introduction to Mathematical Logic, University of Connecticut, Spring 2019.
- 9. Transition to Advanced Mathematics, University of Connecticut, Fall 2018.
- 10. Transition to Advanced Mathematics, University of Connecticut, Fall 2017.
- 11. Calculus II, Fall 2017.
- 12. Transition to Advanced Mathematics, University of Connecticut, Spring 2017.
- 13. Transition to Advanced Mathematics, University of Connecticut, Spring 2016.
- 14. Transition to Advanced Mathematics, University of Connecticut, Fall 2015.
- 15. Introduction to Mathematical Logic, University of Connecticut, Spring 2015.
- 16. Calculus I, University of Connecticut, Fall 2014.
- 17. Calculus II, University of Connecticut, Fall 2014. University of Connecticut,
- 18. Reverse Mathematics, University of Connecticut, Spring 2014.
- 19. Honors Calculus II, University of Connecticut, Fall 2013.
- 20. Calculus B for Life Sciences, University of Notre Dame, Spring 2012.
- 21. Calculus A for Life Sciences, University of Notre Dame, Fall 2011.
- 22. Number Theory for College Students, University of Chicago, Spring 2011.
- 23. Geometry for College Students, University of Chicago, Winter 2011.
- 24. Number Theory for College Students, University of Chicago, Fall 2010.
- 25. Number Theory for College Students, University of Chicago, Spring 2009.
- 26. Calculus 3, University of Chicago, Winter 2009.
- 27. Calculus 2, University of Chicago, Fall 2008.

### Other pedagogical activities.

- Lecturer, Young Scholars Program (YSP), University of Chicago, Summer 2019, Summer 2021.
  - (Course: Axiomatic Geometry.)
- 2. Teaching assistant, University of Chicago, 2006–2011. (Courses: Model Theory I; Computability Theory II; Set Theory and Mathematical Logic II; Mathematical Logic I.)
- 3. College fellow, University of Chicago, 2006–2007. (Courses: Set Theory and Mathematical Logic II; Mathematical Logic I; Multivariate Calculus.)
- 4. Mentor, Directed Reading Program (DRP), University of Chicago, 2007–2011. (Topics: Gödel's incompleteness theorems, axiomatic set theory, reverse mathematics.)
- Mentor, Research Experience for Undergraduates (REU) Program, University of Chicago, Summer 2007, Summer 2008, Summer 2010.

(Topics: axiomatic set theory; combinatorics; computability theory; model theory; reverse mathematics.)

#### **PUBLICATIONS**

# Monographs.

- 1. D. D. Dzhafarov and C. Mummert, Reverse Mathematics: Problems, Reductions, and Proofs. Theory and Applications of Computability, Springer Nature, 2022.
- P.-E. A. d'Auriac, P. A. Cholak, D. D. Dzhafarov, B. Monin, and L. L. Patey, "Milliken's tree theorem and its applications: a computability-theoretic perspective," Mem. Amer. Math. Soc., vol. 293, no. 1457, pp. vi+118, 2024.

## Research articles.

- 1. D. D. Dzhafarov, R. Solomon, and A. Volpi, "Effectiveness and strong graph indivisibility," to appear.
- 2. D. D. Dzhafarov, R. Solomon, and M. Valenti, "The tree pigeonhole principle in the Weihrauch degrees," to appear.
- 3. D. D. Dzhafarov, R. Solomon, and K. Yokoyama, "On the first-order parts of problems in the weihrauch degrees," *Computability*, vol. 13, no. 3–4, pp. 363–375, 2024.
- 4. H. Benham, A. DeLapo, D. D. Dzhafarov, R. Solomon, and J. D. Villano, "The Ginsburg–Sands theorem and computability theorysands theorem and computability theory," *Adv. Math.*, vol. 444, p. 109618, 2024.
- D. D. Dzhafarov, D. R. Hirschfeldt, and S. Reitzes, "Reduction games, provability and compactness," J. Math. Log., vol. 22, no. 3, pp. Paper No. 2250009, 37, 2022.
- 6. D. Dzhafarov, S. Flood, R. Solomon, and L. Westrick, "Effectiveness for the dual Ramsey theorem," *Notre Dame J. Form. Log.*, vol. 62, no. 3, pp. 455–490, 2021.
- 7. D. D. Dzhafarov and L. Patey, "COH, SRT<sub>2</sub>, and multiple functionals," *Computability*, vol. 10, no. 2, pp. 111–121, 2021.
- 8. D. D. Dzhafarov, J. L. Goh, D. R. Hirschfeldt, L. Patey, and A. Pauly, "Ramsey's theorem and products in the Weihrauch degrees," *Computability*, vol. 9, no. 2, pp. 85–110, 2020.
- 9. P. Cholak, D. D. Dzhafarov, D. R. Hirschfeldt, and L. Patey, "Some results concerning the  $\mathsf{SRT}_2^2$  vs.  $\mathsf{COH}$  problem," *Computability*, vol. 9, no. 3–4, pp. 193–217, 2020.
- E. P. Astor, D. D. Dzhafarov, A. Montalbán, R. Solomon, and L. B. Westrick, "The determined property of Baire in reverse math," J. Symb. Log., vol. 85, no. 1, pp. 166–198, 2020.
- 11. B. F. Csima, D. D. Dzhafarov, D. R. Hirschfeldt, C. G. Jockusch, Jr., R. Solomon, and L. B. Westrick, "The reverse mathematics of Hindman's theorem for sums of exactly two elements," *Computability*, vol. 8, no. 3–4, pp. 253–263, 2020.
- 12. D. D. Dzhafarov, "Joins in the strong Weihrauch degrees," Math. Res. Lett., vol. 26, no. 3, pp. 749–767, 2019.
- 13. D. D. Dzhafarov, "A note on the reverse mathematics of the sorites," *The Review of Symbolic Logic*, vol. 12, no. 1, pp. 30–36, 2019.

- 14. D. D. Dzhafarov and J. R. Mileti, "The complexity of primes in computable unique factorization domains," *Notre Dame J. Form. Log.*, vol. 59, no. 2, pp. 139–156, 2018.
- 15. D. Dzhafarov and L. Patey, "Coloring trees in reverse mathematics," Adv. Math., vol. 318, pp. 497–514, 2017.
- D. D. Dzhafarov, C. G. Jockusch, R. Solomon, and L. B. Westrick, "Effective-ness of Hindman's theorem for bounded sums," in Computability and Complexity: Essays Dedicated to Rodney G. Downey on the Occasion of His 60th Birthday (A. Day, M. Fellows, N. Greenberg, B. Khoussainov, A. Melnikov, and F. Rosamond, eds.), pp. 134–142, Springer-Verlag, 2017.
- 17. E. P. Astor, D. D. Dzhafarov, R. Solomon, and J. Suggs, "The uniform content of partial and linear orders," *Ann. Pure Appl. Logic*, vol. 168, no. 6, pp. 1153–1171, 2017.
- D. D. Dzhafarov, L. Patey, R. Solomon, and L. B. Westrick, "Ramsey's theorem for singletons and strong computable reducibility," *Proc. Amer. Math. Soc.*, vol. 145, no. 3, pp. 1343–1355, 2017.
- 19. D. D. Dzhafarov and G. Igusa, "Notions of robust information coding," *Computability*, vol. 6, no. 2, pp. 105–124,, 2017.
- 20. D. D. Dzhafarov, "Strong reductions between combinatorial principles," J. Symbolic Logic, vol. 81, no. 4, pp. 1405–1431, 2016.
- 21. P. A. Cholak, D. D. Dzhafarov, and M. I. Soskova, "Genericity for Mathias forcing over general Turing ideals," *Israel J. Math.*, vol. 216, no. 2, pp. 583–604, 2016.
- 22. F. G. Dorais, D. D. Dzhafarov, J. L. Hirst, J. R. Mileti, and P. Shafer, "On uniform relationships between combinatorial problems," *Trans. Amer. Math. Soc.*, vol. 368, no. 2, pp. 1321–1359, 2016.
- 23. D. D. Dzhafarov, "Cohesive avoidance and strong reductions," *Proc. Amer. Math. Soc.*, vol. 143, no. 2, pp. 869–876, 2015.
- P. A. Cholak, D. D. Dzhafarov, J. L. Hirst, and T. A. Slaman, "Generics for computable Mathias forcing," Ann. Pure Appl. Logic, vol. 165, no. 9, pp. 1418– 1428, 2014.
- 25. A. R. Day and D. D. Dzhafarov, "Limits to joing with generics and randoms," in *Proceedings of the 12th Asian Logic Conference* (R. Downey, J. Brendle, R. Goldblatt, and B. Kim, eds.), pp. 76–88, World Sci. Publ., Hackensack, NJ, 2013.
- 26. D. D. Dzhafarov and C. Mummert, "On the strength of the finite intersection principle," *Israel J. Math.*, vol. 196, no. 1, pp. 345–361, 2013.
- 27. P. A. Cholak, D. D. Dzhafarov, N. Schweber, and R. A. Shore, "Computably enumerable partial orders.," *Computability*, vol. 1, no. 2, pp. 99–107, 2012.
- 28. D. D. Dzhafarov and C. Mummert, "Reverse mathematics and properties of finite character," *Ann. Pure Appl. Logic*, vol. 163, no. 9, pp. 1243–1251, 2012.
- 29. D. D. Dzhafarov and E. N. Dzhafarov, "The equivalence of two ways of computing distances from dissimilarities for arbitrary sets of stimuli," *J. Math. Psychol.*, vol. 55, no. 6, pp. 469–472, 2011.
- 30. D. Dzhafarov, "Infinite saturated orders," *Order*, vol. 28, no. 2, pp. 163–172, 2011
- 31. D. D. Dzhafarov, "Stable Ramsey's theorem and measure," *Notre Dame J. Form. Log.*, vol. 52, no. 1, pp. 95–112, 2011.

- 32. D. E. Diamondstone, D. D. Dzhafarov, and R. I. Soare, " $\Pi_1^0$  classes, Peano arithmetic, randomness, and computable domination," *Notre Dame J. Form. Log.*, vol. 51, no. 1, pp. 127–159, 2010.
- 33. D. D. Dzhafarov, J. L. Hirst, and T. J. Lakins, "Ramsey's theorem for trees: the polarized tree theorem and notions of stability," *Arch. Math. Logic*, vol. 49, no. 3, pp. 399–415, 2010.
- 34. E. N. Dzhafarov and D. D. Dzhafarov, "Sorites without vagueness I: Classificatory sorites," *Theoria*, vol. 76, no. 1, pp. 4–24, 2010.
- 35. E. N. Dzhafarov and D. D. Dzhafarov, "Sorites without vagueness II: Comparative sorites," *Theoria*, vol. 76, no. 1, pp. 25–53, 2010.
- 36. D. D. Dzhafarov and C. G. Jockusch, Jr., "Ramsey's theorem and cone avoidance," *J. Symbolic Logic*, vol. 74, no. 2, pp. 557–578, 2009.
- 37. D. D. Dzhafarov and J. L. Hirst, "The polarized Ramsey's theorem," *Arch. Math. Logic*, vol. 48, no. 2, pp. 141–157, 2009.
- 38. O. De la Cruz, D. D. Dzhafarov, and E. J. Hall, "Definitions of finiteness based on order properties," *Fund. Math.*, vol. 189, no. 2, pp. 155–172, 2006.

## Preliminary reports.

1. P. A. Cholak, D. D. Dzhafarov, and J. L. Hirst, "On Mathias generic sets," in *How the world computes* (B. S. Cooper, A. Dawar, and B. Löwe, eds.), vol. 7318 of *Lecture Notes in Comput. Sci.*, pp. 129–138, Springer, Heidelberg, 2012.

### Reviews.

- 1. D. D. Dzhafarov, "Robert I. Soare, Turing Computability, Theory and Applications of Computability, Springer-Verlag, Berlin, Heidelberg, 2016," Bull. Symbolic Logic, vol. 23, no. 1, pp. 113–115, 2017.
- 2. D. D. Dzhafarov, "Dov M. Gabbay, Akihiro Kanamori, and John Woods (editors), Handbook of the History of Logic, Volume 6: Sets and Extensions in the Twentieth Century, North-Holland, Amsterdam, 2012," MAA Reviews, 2013.

## Book chapters.

- 1. D. D. Dzhafarov and E. N. Dzhafarov, "Classificatory sorites, probabilistic supervenience, and rule-making," in *On the Sorites Paradox* (A. Abasnezhad and O. Bueno, eds.), Springer, to appear.
- 2. E. N. Dzhafarov and D. D. Dzhafarov, "The sorites paradox: a behavioral approach," in *Qualitative Mathematics for the Social Sciences: Mathematical Models for Research on Cultural Dynamics* (L. Rudolph, ed.), Cultural dynamics of social representation, Routledge, 2013.

## Edited work.

 V. Brattka, D. D. Dzhafarov, A. Marcone, and A. Pauly, eds., Computability: Special issue dedicated to the Dagstuhl Seminar on Measuring the Complexity of Computational Content: from Combinatorial Problems to Analysis, vol. 9, 2020.

#### Talks and research visits

## Invited talks at conferences and workshops.

1. Workshop on Ramsey Theory in Logic, Combinatorics, and Complexity, University of Pisa, Italy, June 2024.

- 2. ASL Annual North American Meeting, Special Session on Computability Theory, Iowa State University, May 2024.
- 3. AMS Spring Central Sectional Meeting, Special Session on Computability Theory, University of Wisconsin-Milwaukee, April 2024.
- 4. AMS Special Session on Computable Mathematics: A Special Session Dedicated to Martin D. Davis, Joint Mathematics Meetings, San Francisco, January 2024.
- 5. Twentieth International Conference on Computability and Complexity in Analysis, Dubrovnik, Croatia, September 2023.
- 6. From omega to Omega, Institute for Mathematical Sciences, National University of Singapore, June 2023.
- 7. AMS Spring Southeastern Sectional Meeting, Special Session on Logic, Combinatorics, and their Interactions, Georgia Institute of Technology, March 2023.
- 8. Plenary speaker, SouthEAstern Logic Symposium (SEALS), University of Florida, March 2023.
- 9. Workshop on Mathematical Indispensability in Philosophy, Munich Center for Mathematical Philosophy, February 2023.
- Plenary speaker, Computability in Europe 2022, Swansea University, UK, July 2022.
- 11. ASL Annual North American Meeting, Special Session on Computability Theory, Cornell University, April 2022.
- Cross-Alps Logic Seminar, Logic Groups of the Universities of Genoa, Lausanne, Turin, and Udine, Italy and Switzerland, March 2022.
- 13. New directions in computability theory, Centre International de Rencontres Mathématiques (CIRM), Luminy, France, March 2022.
- Výjezdní zasedání KTIML MFF UK, Charles University, Prague, September 2021.
- Plenary speaker, SouthEAstern Logic Symposium (SEALS), University of Florida, February 2021.
- 16. MSRI Workshop on Decidability, definability and computability in number theory, Mathematical Sciences Research Institute, October 2020.
- 17. Online Logic Seminar, Southern Illinois University, August 2020.
- Secret Computability Meeting, Institut Henri Poincaré, Paris, France, February 2020
- 19. Canadian Mathematical Society Winter Meeting, Special Session on Computability Theory, Toronto, Canada, December 2019.
- AMS Fall Central Sectional Meeting, Special Session on Computability Theory in Honor of Steffen Lempp's 60th Birthday, University of Wisconsin-Madison, September 2019.
- 21. 2019 Weak Arithmetic Days (JAF 38), City University of New York, May 2019.
- Langenhop Lecture and SIU Mathematics Conference, Southern Illinois University Carbondale, May 2019.
- 23. AMS Spring Central and Western Joint Sectional Meeting, Special Session on Computability, Complexity, and Learning, University of Hawai'i at Mānoa, March 2019.
- 24. New England Recursion and Definability Seminar (NERDS), Springfield College, November 2018.

- Workshop on Ramsey Theory in Logic, Combinatorics, and Complexity, Bertinoro International Center for Informatics, July 2018.
- Plenary speaker, Computability Theory and Applications, University of Waterloo, June 2018.
- 27. ASL Annual North American Meeting, Special Session on Computability Theory, Western Illinois University, May 2018.
- 28. Computability Theory Meeting, Mathematisches Forschungsinstitut Oberwolfach, January 2018.
- 29. 11th Panhellenic Logic Symposium, Special Session on Computability Theory, Delphi, Greece, July 2017.
- Plenary speaker, Seventeenth Latin American Symposium on Mathematical Logic, Puebla, Mexico, June 2017.
- 31. AMS Spring Eastern Sectional Meeting, Special Session on Computability Theory: Pushing the Boundaries, Hunter College, New York, May 2017.
- 32. UConn Logic Group/Munich Center for Mathematical Philosophy Joint Conference, University of Connecticut, April 2017.
- 33. Midwest Computability Workshop: Special Meeting in Honor of Carl Jockusch's 75th Birthday, University of Chicago, October 2016.
- 34. New Challenges in Reverse Mathematics, Institute for Mathematical Sciences, National University of Singapore, January 2016.
- 35. AMS Fall Central Sectional Meeting, Special Session on Computability Theory and Applications, Loyola University Chicago, October 2015.
- 36. Measuring the Complexity of Computational Content: Weihrauch Reducibility and Reverse Analysis, Schloss Dagstuhl Research Center for Computer Science, September 2015.
- 37. ASL Annual European Meeting, Special Session on Computability Theory, University of Helsinki, August 2015.
- 38. AMS Spring Eastern Sectional Meeting, Special Session on Computable Structure Theory, Georgetown University, March 2015.
- 39. SouthEAstern Logic Symposium (SEALS), University of Florida, February 2015.
- 40. Canadian Mathematical Society Winter Meeting, Special Session on Computability Theory, Hamilton, Canada, December 2014.
- 41. New England Recursion and Definability Seminar (NERDS), Olin College, March 2014.
- 42. Computability Theory and Foundations of Mathematics, Tokyo Institute of Technology, February 2014.
- 43. ASL Plenary Address, Joint Mathematics Meetings, Baltimore, January 2014.
- 44. New England Recursion and Definability Seminar (NERDS), Dartmouth College, October 2013.
- 45. Buenos Aires Semester in Computability, Complexity and Randomness, Universidad de Buenos Aires, March 2013.
- 46. ASL Annual North American Meeting, Special Session on Computability Theory, University of Wisconsin–Madison, April 2012.
- 47. Computability Theory Meeting, Mathematisches Forschungsinstitut Oberwolfach, February 2012.

- 48. Mid-Atlantic Mathematical Logic Seminar, Florida Atlantic University, February 2012.
- 49. Asian Logic Conference, Victoria University of Wellington, December 2011.
- 50. Formal Philosophy Workshop, University of Chicago, January 2011.
- 51. AMS Fall Central Sectional Meeting, Special Session on Computability and its Applications, University of Notre Dame, November 2010.
- 52. Midwest Computability Workshop, University of Chicago, September 2010.
- 53. Workshop on Computability Theory 2010, Universidade dos Açores, July 2010.
- 54. Eleventh Annual Graduate Student Conference in Logic, University of Wisconsin–Madison, April 2010.
- 55. SouthEAstern Logic Symposium (SEALS), University of Florida, February 2010.

#### Invited talks at other universities.

- 1. Logic Seminar, University of Notre Dame, April 2024.
- 2. CUNY Graduate Center Logic Workshop, New York, February 2024.
- 3. Logic Seminar, Pennsylvania State University, April 2022.
- 4. Leeds-Ghent Virtual Logic Seminar, University of Leeds, November 2021.
- Logic Seminar, Institute of Mathematics, Czech Academy of Sciences, November 2021.
- Seminar on Theory of Computing, KTIML MFF UK, Charles University, Prague, October 2021.
- 7. Models of Peano Arithmetic Seminar, City University of New York Graduate Center, March 2021.
- 8. Iowa Colloquium on Information, Complexity, and Logic, Drake University/Grinnell College/Iowa State University, October 2020.
- 9. Advanced Research Initiative (ARI) Speaker, Marshall University, April 2017.
- 10. Logic Seminar, University of California, Irvine, October 2016.
- 11. Reading Seminar, Cornell University, September 2016.
- 12. Logic Seminar, Cornell University, September 2016.
- 13. Logic Seminar, Cornell University, November 2015.
- 14. Mathematics REU Seminar, Mount Holyoke College, July 2015.
- 15. Logic Seminar, University of Notre Dame, March 2014.
- 16. CUNY Logic Workshop, City University of New York, February 2014.
- 17. Logic Seminar, Cornell University, February 2014.
- 18. Logic Seminar, Pennsylvania State University, November 2013.
- 19. Logic Colloquium, University of California, Los Angeles, October 2013.
- Southern Wisconsin Logic Colloquium, University of Wisconsin-Madison, May 2013.
- 21. Institute Colloquium, Institute for Logic, Language, and Computation, Universiteit van Amsterdam, February 2013.
- 22. Department of Mathematics Colloquium, University of Connecticuct, February 2013.
- 23. Logic Seminar, The Ohio State University, April 2012.
- 24. Departmental Seminar, Grand Valley State University, March 2012.
- 25. Logic Seminar, Cornell University, February 2012.

- 26. Connecticut Logic Seminar, University of Connecticut and Wesleyan University, February 2011 (unable to deliver).
- 27. Logic Colloquium, University of Connecticut, February 2011.
- 28. Reading Seminar, University of Notre Dame, April 2010.
- Department of Mathematics Colloquium, University of Hawai'i at Mānoa, August 2009.
- 30. Logic Seminar, University of Notre Dame, October 2008.
- 31. Chicago Joint Logic Seminar, University of Chicago and University of Illinois at Chicago, April 2008.
- 32. Logic Seminar, University of Illinois at Chicago, November 2007.

# Invited meeting participation and research visits.

- 1. Workshop on Reverse Mathematics and its Philosophy, University of Chicago Center in Paris, June 2022.
- 2. Descriptive Set Theory and Computable Topology Seminar, Schloss Dagstuhl Research Center for Computer Science, November 2021.
- 3. Computability and Complexity Symposium 2017 (in honour of Rod Downey's 60th birthday), Raumati, New Zealand, January 2017.
- 4. New Challenges in Reverse Mathematics, Institute for Mathematical Sciences, National University of Singapore, January 2016.
- 5. Measuring the Complexity of Computational Content: Weihrauch Reducibility and Reverse Analysis, Schloss Dagstuhl Research Center for Computer Science, September 2015.
- 6. University of Notre Dame, March 2014.
- 7. Sofia University, July 2013.
- 8. University of Wisconsin, May 2013.
- 9. Computability Theory Meeting, Mathematisches Forschungsinstitut Oberwolfach, February 2012.
- Workshop on Ramsey Theory in Logic, Combinatorics, and Complexity, Bertinoro International Center for Informatics, May 2011.

#### Professional activites and service

## Editorship.

1. Editor, Journal of Symbolic Logic, 2021-present.

### Ongoing organizing activites.

- 1. Associate Director, UConn Logic Group, 2014–present (Acting Director, Fall 2014, Spring/Summer 2018).
- 2. Co-director (with M. Kaufmann and M. Rossberg), UConn Graduate Certificate in Logic, 2018–present.
- 3. Member of program committee, Computability Theory and Applications Online Seminar, 2020–present.
- 4. Member of steering committee, Workshop on Computability Series, 2011–present.

# Ad hoc organizing activites.

- Co-organizer (with A. Marcone and M. Soskova), Special Session on Computability Theory, Joint Meeting UMI-AMS, Università degli Studi di Palermo, July 2024.
- 2. Co-organizer (with V. Cipriani, E. Fokina, and D. Rossegger), Computable structure theory and interactions, Vienna, July 2024.
- 3. Co-organizer (with A. Pauly), Special Session on Weihrauch Complexity, Computability in Europe (CiE) 2023, Batumi, Goergia, July 2023.
- Co-organizer (with P. A. Cholak, D. R. Hirschfeldt, M. Maryallis, A. Montalbán, T. A. Slaman, R. Solomon, and L. B. Westrick), Computability and Combinatorics 2023 (Summer School and Conference), University of Connecticut, May 2023.
- 5. Co-organizer (with P. Cholak and D. Hirschfeldt), Reverse Mathematics of Combinatorial Principles, Banff International Research Station/Casa Matematica Oaxaca, September 2019.
- Co-organizer (with A. Shen), Special Session on Computability Theory, Logic Colloquium 2019, Prague, August 2019.
- Co-organizer (with R. Solomon and L. B. Westrick), Special Session on Computability Theory, AMS Spring Eastern Sectional Meeting, University of Connecticut, April 2019.
- 8. Co-organizer (with V. Brattka, A. Marcone, and A. Pauly), Measuring the Complexity of Computational Content: From Combinatorial Problems to Analysis, Schloss Dagstuhl Research Center for Computer Science, September 2018.
- 9. Member of program committee (with L. Carlucci, P. Cholak, D. Hirschfeldt, and L. Patey), Workshop on Ramsey Theory and Computability Theory, Rome, Italy, July 2018.
- Co-organizer (wirh R. Solomon), Special Semester in Logic, University of Connecticut, Fall 2017.
- 11. Co-organizer (with P. Cholak, D. Hirschfeldt, and L. Patey), Meeting on  $SRT_2^2$  and COH, University of Chicago, April 2017.
- 12. Member of program committee, 12th International Conference on Computability, Complexity, and Randomness, Infosys Mysore Campus, Mysuru, India, July 2017.
- 13. Member of program and organizing committees, 2016 ASL North American Annual Meeting, University of Connecticut, May 2016.
- Member of program and organizing committees, Workshop on Computability Theory, Bucharest, July 2015.
- 15. Member of program committee, Computability in Europe 2015, Bucharest, June–July 2015.
- 16. Chair of program and organizing committees, Workshop on Computability Theory 2014, Prague, July 2014.
- 17. Co-organizer (with J. Hirst and C. Mummert), AMS/ASL Special Session "Life and Legacy of Alan Turing", Joint Mathematics Meetings, Boston, January 2012.
- 18. Member of organizing committee, Computability in Europe 2011, Sofia University, June 2011.
- 19. Chair of organizing committee, Computability Theory and Applications: A Meeting in Honor of Robert I. Soare, University of Chicago, May 2011.

- 20. Member of organizing committee, Directed Reading Program in Mathematics, University of Chicago, 2008–2011.
- 21. Member of organizing committee, Reasearch Experience for Undegraduates Program, University of Chicago, Summer 2010.
- 22. Co-founder and co-organizer (with A. Shkop), Chicago Joint Logic Seminar (University of Chicago and University of Illinois at Chicago), 2008–2010.
- 23. Co-organizer (with D. Hirschfeldt), Reverse Mathematics: Foundations and Applications Workshop, University of Chicago, November 2009.
- 24. Co-organizer (with D. Sahota), Eighth Annual Graduate Student Conference in Logic, Chicago, Illinois, April 2007.

## Referee and panel work.

- 1. Reviewer for Consorzio Interuniversitario Lombardo per l'Elaborazione Automatica (CINECA), Italy.
- 2. Reviewer for National Science Center, Poland.
- 3. NSF Reviewer and Panel Member.
- 4. Referee for publications and conferences in mathematics and computer science, including Advances in Mathematics, Annals of Pure and Applied Logic, Archive for Mathematical Logic, Computability, Computability and Complexity in Analysis, Computability in Europe Proceedings (LNCS), Journal of Algebra, Journal of Mathematical Logic, Journal of Mathematical Psychology, Journal of Symbolic Logic, Notre Dame Journal of Formal Logic, Order, Proceedings of the Conference in Honor of Harvey M. Friedman's 60th Birthday, Proceedings of the International Symposium on Computability and Complexity (in honour of Rod Downey's 60th birthday), Theory of Computing Systems, Transactions of the American Mathematical Society, Transactions of the London Mathematical Society.
- 5. Book reviewer for Mathematical Association of America and Bentham Science Publishers.
- 6. Reviewer for Mathematical Reviews.

### Other service to profession.

- 1. Co-founder (with L. Patey) and maintainer, computability.org, 2018-present.
- 2. Founder and maintainer, Reverse Math Zoo (rmzoo.uconn.edu), 2011-present.

# Service to University of Connecticut.

- 1. Director of Undergraduate Studies, Department of Mathematics, 2023-present.
- 2. Faculty Advisor, UConn Student Chapter of the American Mathematical Society, 2017–present.
- 3. Outreach Coordinator, UConn Department of Mathematics, 2019–2023.
- 4. Member, UConn Department of Mathematics Advisory Committee, 2015–2018, 2022–2023.
- Member, UConn Department of Mathematics Building Committee, 2014–2016.
- 6. Chair, UConn Department of Mathematics Website Committee, 2013–2023.