

# Dexter Campbell Kozen

November 20, 2025

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## Birthdate

December 20, 1951

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## Citizenship

USA

## Family status

Married (Frances),  
three children

## Education

6/74 BA summa cum laude, Mathematics, Dartmouth College  
5/77 MS, PhD, Computer Science, Cornell University

## Employment

Kiewit Computation Center, Dartmouth College  
1/71–7/74 Systems Programmer  
Digicomp Research, Ithaca, NY  
6/76–5/77 Consultant  
University of California, Berkeley  
9/77–9/78 Postdoctoral Fellow  
IBM Research, Yorktown Heights, NY  
9/78–9/81 Research Staff Member  
9/82–9/85 Research Staff Member  
9/82–8/85 Manager, Theory of Computation Project  
Aarhus University, Denmark  
9/81–9/82 Visiting Professor, Computer Science  
9/91–9/92 Visiting Professor, Computer Science  
Columbia University  
1/84–8/85 Adjunct Professor, Computer Science  
Cornell University  
8/85–12/88 Associate Professor, Computer Science  
1/89–10/94 Professor, Computer Science  
11/94–6/24 Joseph Newton Pew, Jr. Professor in Engineering  
7/24– Joseph Newton Pew, Jr. Professor Emeritus

**Awards and Honors**

- 6/74 John G. Kemeny Prize in Computing, Dartmouth College
- 9/74 Sage Graduate Fellowship, Cornell University
- 5/80 Outstanding Innovation Award, IBM Corporation
- 7/91 Fellow-in-Service, Cornell University
- 8/91 Fellow, John Simon Guggenheim Foundation
- 1/93 Prize “Nagrode” for paper [22], Polish Ministry of Education
- 4/94 Faculty of the Year, Association of Computer Science Undergraduates, Cornell
- 3/00 Class of 1960 Scholar, Williams College
- 4/01 Stephen and Margery Russell Distinguished Teaching Award, College of Arts and Sciences, Cornell
- 12/01 Prize “Nagrode” for book [231], Polish Ministry of Education
- 11/03 Fellow, ACM
- 11/08 Fellow, AAAS
- 12/08 Michael Tien ’72 Excellence in Teaching Award, College of Engineering, Cornell
- 6/11 LICS Test-of-Time Award for paper [102]
- 6/13 Faculty of the Year, Association of Computer Science Undergraduates, Cornell
- 8/13 Daniel M. Lazar ’29 Excellence in Teaching Award, College of Engineering, Cornell
- 1/15 Fellow, EATCS
- 2/16 EATCS Award, European Association for Theoretical Computer Science
- 5/16 W. Wallace McDowell Award, IEEE Computer Society
- 11/18 Stephen H. Weiss Presidential Fellow, Cornell University
- 1/20 POPL Distinguished Paper Award for [174]
- 5/22 Alonzo Church Award for paper [37], ACM SIGLOG, EATCS, EACSL, Kurt Gödel Society
- 10/23 OOPSLA Best Paper Award for [74]

**Invited Lectures**

- 9/79 Second Symp. Fund. Comput. Theory, Berlin [80]
- 8/90 Math. Found. Comput. Sci., Banska-Bystrica, Slovakia [101]
- 6/92 Symp. on Logical Methods, Ithaca, New York [25]
- 9/93 Second Symp. Europ. Assoc. Comput. Sci. Logic (EACSL), Swansea [110]
- 9/94 First Symp. Constraints in Computational Logics, Munich [111]
- 12/94 Foundations Software Technology and Theor. Comput. Sci., Madras [113]
- 4/95 Fifth Int. Conf. Theory and Practice Software Development (TAPSOFT), Aarhus [115]
- 3/96 Second Int. Workshop Tools and Algorithms for the Construction and Analysis of Systems (TACAS’96), Passau [114]
- 1/98 Amer. Math. Soc. Joint Mathematics Meetings
- 8/99 11th Int. Congress of Logic, Methodology and Philosophy of Science, Krakow, Poland [45]
- 9/99 Math. Found. Comput. Sci., Szklarska Poreba, Poland [123]
- 1/00 5th Conf. Relational Methods in Computer Science (RelMiCS), Quebec, Canada [125]
- 2/01 18th Int. Symp. Theor. Aspects of Comp. Sci. (STACS), Dresden, Germany [127]
- 7/01 8th Workshop on Logic, Language, Information and Computation (WoLLIC),

- Brasilia, Brazil [47]
- 3/02 Workshop on Weighted Automata (WATA'02), Dresden, Germany
- 3/02 Clifford Lectures, Tulane University, New Orleans
- 7/02 Conf. Mathematics of Program Construction (MPC'02), Dagstuhl, Germany [131]
- 7/02 Workshop on Fixed Points in Computer Science (FICS'02), Copenhagen [130]
- 9/02 7th Int. Symp. Formal Techniques in Real-Time and Fault Tolerant Systems (FTRTFT'02), Oldenburg, Germany [129]
- 9/03 10th Int. Conf. Logic for Programming, Artificial Intelligence and Reasoning (LPAR'03), Almaty, Kazakhstan
- 1/04 Workshop on Logic and Computation, Nelson, NZ
- 4/04 Latin American Theoretical INformatics (LATIN'04), Buenos Aires
- 8/06 Math. Found. Comput. Sci., High Tatras, Slovakia
- 3/08 Workshop on Modal Fixpoint Logics, Amsterdam
- 4/08 9th Int. Workshop Coalgebraic Methods in Computer Science (Keynote), Budapest
- 6/08 23rd Symp. Logic in Computer Science, Pittsburgh
- 9/08 British Logic Colloquium, Nottingham, UK
- 1/11 Australian Computer Science Week (Keynote), Perth, Australia
- 1/11 28th Conf. Math. Found. Programming Semantics (MFPS XXVIII), Dubrovnik, Croatia [148]
- 7/12 14th Int. Workshop Descriptive Complexity of Formal Systems (DCFS'12) (Keynote), Braga, Portugal [59]
- 6/14 Math. Found. Programming Semantics (MFPS XXX), Ithaca, New York
- 11/14 Asian Symposium on Programming Language and Systems (APLAS'14) (Keynote), Singapore
- 5/15 10th Alpine Verification Meeting (AVM), Attersee, Austria
- 4/17 Theory Day, Reykjavik, Iceland
- 5/17 Summer School on Probabilistic Programming, Braga, Portugal
- 6/17 Math. Found Programming Semantics, Ljubljana, Slovenia
- 6/17 Infinity Workshop, Reykjavik, Iceland
- 9/17 Tbilisi Symposium on Language, Logic and Computation, Tbilisi, Georgia
- 7/18 Coalgebra Now Workshop, Oxford, UK
- 5/19 2019 Milner Lecture, School of Informatics, University of Edinburgh
- 10/19 2nd Dali Workshop: Dynamic Logic, New Trends and Applications, 3rd World Congress on Formal Methods, Porto, Portugal
- 4/20 Steklov Institute, Moscow
- 6/20 Math. Found. Programming Semantics (MFPS'20), Paris (keynote)
- 4/24 17th Int. Workshop Coalgebraic Methods in Computer Science (CMCS 2024), Luxembourg City, keynote (declined)
- 6/24 30th Workshop on Logic, Language, Information and Computation (WoLLIC'24), Bern, Switzerland
- 12/24 IRIF Distinguished Seminar, University of Paris
- 4/25 Distinguished Lecture, University of Buffalo

5/25 Distinguished Lecture, University of Texas at Austin

## Professional Activities

### Program Committees

IEEE Symp. Foundations of Computer Science (FOCS), 1981, 1983, 1984, 1988 (chair), 1993, 1996  
 Symp. on Fundamentals of Computation Theory (FCT), 1983, 1985, 1987  
 Workshop on Logics of Programs, 1981, 1983, 1985  
 IEEE Symp. Logic in Computer Science (LICS), 1986, 1989, 1994, 1995 (chair), 2007, 2015  
 ACM Symp. Principles of Programming Languages (POPL), 1986, 2017, 2021  
 ACM Symp. Theory of Computing (STOC), 1987, 1990  
 IEEE Symp. Structure in Complexity Theory, 1990  
 Int. Colloq. Automata, Languages, and Programming (ICALP), 1992  
 Fourth Int. Conf. Theory and Practice of Software Development (TAPSOFT), April 1993  
 Principles and Practice of Constraint Programming, April 1993  
 Symp. on Quantifier Elimination and Cylindrical Algebraic Decomposition  
   in Honor of George Collins, October 1993  
 Scandinavian Workshop on Algorithm Theory, 1994  
 Workshop on Fixpoints in Computer Science (FiCS), 1998, 2013  
 Foundations of Software Science and Computation Structure (FoSSaCS), 1999, 2000, 2019, 2021  
 Math. Foundations of Computer Science (MFCS), 2000, 2004, 2017  
 Workshop on Logic, Language, Information and Computation (WoLLIC), 2003, 2017, 2025 (chair)  
 Int. Conf. Mathematics of Program Construction (MPC), 2002, 2004 (chair), 2006  
 Int. Conf. Computer Science Logic (CSL), 2026  
 Int. Sem. Relational Methods in Computer Science (RAMiCS), 2003, 2017, 2018, 2020  
 Int. Workshop Applications of Kleene Algebra, 2003  
 Computing: the Australasian Theory Symposium (CATS), 2012  
 Mathematical Foundations of Programming Semantics (MFPS), 2013 (chair), 2014, 2019, 2020  
 Dynamic Logic: New Trends and Applications (DaLi), 2017, 2019  
 Int. Conf. Logic for Programming, Artificial Intelligence and Reasoning (LPAR), 2015, 2017, 2018  
 Tbilisi Symposium on Language, Logic and Computation (TbiLLC), 2015  
 Int. Symp. Theoretical Aspects of Software Engineering (TASE), 2016  
 Conf. Algebra and Coalgebra in Computer Science (CALCO), 2015  
 Int. Conf. Language and Automata Theory and Applications (LATA), 2020  
 Int. Conf. Coalgebraic Methods in Computer Science (CMCS), 2020

### Organizing Committees

IEEE Symp. on Logic in Computer Science, 1986–1992, 1994–1999  
 Workshop on Logics of Programs, 1981, 1983, 1985  
 Dagstuhl Workshop on Algebraic Complexity and Parallelism, July 1992  
 Symposium in honor of Juris Harmanis and Richard Stearns, March 1994  
 Dagstuhl Seminar on Tree Automata, October 1997  
 Dagstuhl Seminar on Applications of Kleene Algebra, February 2001  
 Logics for System Analysis, July 2010

### Local Arrangements

Workshop on Logics of Programs, 1981  
 IEEE Symp. on Logic in Computer Science, 1987  
 IEEE Symp. on Structure in Complexity Theory, 1987  
 Mathematical Foundations of Programming Semantics, 2014

#### Editorial Boards

Information and Control, 1984–1986  
 Annals of Pure and Applied Logic, 1987 (special issue)  
 J. Comput. Syst. Sci., 1988 (special issue)  
 J. Algorithms, 1988 (special issue)  
 Info. and Computation, 2000 (special issue)  
 SIAM J. Comput., 1989–1994  
 J. Relational Methods in Computer Science, 2000–  
 Theory of Computing Systems, 2001–

#### Advisory Boards

Centre for Basic Research in Computer Science (BRICS), Aarhus University  
 ACM/IEEE Symp. Logic in Computer Science, 1999–  
 ACM SIGLOG advisory board, 2014

#### Other Committees

Taulbee survey, Computing Research Assoc., 1997, chair 1998  
 Gödel prize committee, ACM, 2000–2003, chair 2003  
 Logic in Computer Science Test-of-Time award committee, chair, 2014  
 Ackermann award committee, 2017, 2018, 2019

### PhD Theses Supervised

1. Bradley T. Vander Zanden. *Incremental Constraint Satisfaction and its Application to Graphical Interfaces*. PhD thesis, Cornell University, August 1988.
2. Matthew T. Dickerson. *The Functional Decomposition of Polynomials*. PhD thesis, Cornell University, May 1989.
3. Douglas J. Ierardi. *The Complexity of Quantifier Elimination in the Theory of an Algebraically Closed Field*. PhD thesis, Cornell University, May 1989.
4. Mark B. Novick. *Parallel Algorithms for Intersection Graphs*. PhD thesis, Cornell University, May 1990.
5. Nils Klarlund. *Progress Measures and Finite Arguments for Infinite Computations*. PhD thesis, Cornell University, August 1990.
6. Devdatt Dubhashi. *Algorithmic Investigations in  $p$ -adic Fields*. PhD thesis, Cornell University, August 1992.
7. Eugene Ressler. *ALEX—A Paradigm for the Expression and Compilation of Matrix Functions*. PhD thesis, Cornell University, May 1993.

8. Kjartan Stefánsson. *Newtonian Graphs, Riemann Surfaces, and Computation*. PhD thesis, Cornell University, May 1995.
9. David Pearson. *Parallel Computing as a Commodity*. PhD thesis, Cornell University, December 1997.
10. Agnes Szanto. *Computation with Polynomial Systems*. PhD thesis, Cornell University, August 1998.
11. Arthur Neal Glew. *Low-Level Type Systems for Modularity and Object-Oriented Features*. PhD thesis, Cornell University, January 2000.
12. Sarah A. Spence. *Subspace Subcodes and Generalized Coset Codes*. PhD thesis, Cornell University, May 2002.
13. Hubert Chen. *The Computational Complexity of Quantified Constraint Satisfaction*. PhD thesis, Cornell University, August 2004.
14. Christopher Hardin. *The Horn Theory of Relational Kleene Algebra*. PhD thesis, Cornell University, May 2005.
15. Kamal Aboul-Hosn. *A Proof-Theoretic Approach to Mathematical Knowledge Management*. PhD thesis, Cornell University, December 2006.
16. Alexa Sharp. *Incremental Algorithms: Solving Problems in a Changing World*. PhD thesis, Cornell University, May 2007.
17. Jeffrey Hartline. *Incremental Optimization*. PhD thesis, Cornell University, August 2007.
18. James Michael Worthington. *Automata, Representations, and Proofs*. PhD thesis, Cornell University, August 2009.
19. Nikolaos Karampatziakis. *Online Learning Algorithms for Sequence Prediction, Importance-Weighted Classification, and Active Learning*. PhD thesis, Cornell University, May 2012.
20. Jean-Baptiste Jeannin. *Capsules and Non-Well-Founded Computation*. PhD thesis, Cornell University, August 2013.
21. Konstantinos Mamouras. *Extensions of Kleene Algebra for Program Verification*. PhD thesis, Cornell University, August 2015.
22. Xiang Long. *Primitives for Match-Action in Theory and Practice*. PhD thesis, Cornell University, May 2021.
23. Michael Roberts. *Stochastic Dynamic Logics*. PhD thesis, Cornell University, December 2022.

24. Pedro Henrique Azevedo de Amorim. *A Unifying Semantics for Markov Kernels and Linear Operators*. PhD thesis, Cornell University, August 2023.
25. Shawn Ong. *A Kleene Theorem and Decision Problems for Probability and Angelic Nondeterminism*. PhD thesis, Cornell University, May 2025.

# Dexter Campbell Kozen

## Publications

November 20, 2025

### Journal Articles

1. Dexter Kozen. A clique problem equivalent to graph isomorphism. *SIGACT News*, 10(2):50–52, June 1978.
2. Dexter Kozen. Complexity of Boolean algebras. *Theor. Comput. Sci.*, 10:221–247, 1980.
3. Dexter Kozen. Indexings of subrecursive classes. *Theor. Comput. Sci.*, 11:277–301, 1980.
4. Ashok Chandra, Dexter Kozen, and Larry Stockmeyer. Alternation. *J. Assoc. Comput. Mach.*, 28(1):114–133, 1981. doi:10.1145/322234.322243.
5. Dexter Kozen. Positive first-order logic is *NP*-complete. *IBM J. Res. Develop.*, 25(4):327–332, July 1981.
6. Dexter Kozen. Semantics of probabilistic programs. *J. Comput. Syst. Sci.*, 22(3):328–350, June 1981. doi:10.1016/0022-0000(81)90036-2.
7. Dexter Kozen and Rohit Parikh. An elementary proof of the completeness of *PDL*. *Theor. Comput. Sci.*, 14(1):113–118, 1981.
8. David Harel, Dexter Kozen, and Rohit Parikh. Process logic: Expressiveness, decidability, completeness. *J. Comput. Syst. Sci.*, 25(2):144–170, 1982.
9. Dexter Kozen. Results on the propositional  $\mu$ -calculus. *Theor. Comput. Sci.*, 27:333–354, 1983.
10. Dexter Kozen. A Ramsey theorem with infinitely many colors. In Lenstra, Lenstra, and van Emde Boas, editors, *Dopo Le Parole*, pages 71–72. University of Amsterdam, Amsterdam, May 1984.
11. David Harel and Dexter Kozen. A programming language for the inductive sets, and applications. *Information and Control*, 63(1-2):118–139, 1984.
12. Dexter Kozen. A probabilistic *PDL*. *J. Comput. Syst. Sci.*, 30(2):162–178, April 1985.
13. Andreas Blass, Yuri Gurevich, and Dexter Kozen. A zero-one law for logic with a fixed-point operator. *Information and Control*, 67(1-3):70–90, 1985.
14. Michael Ben-Or, Dexter Kozen, and John Reif. The complexity of elementary algebra and geometry. *J. Comput. Syst. Sci.*, 32(2):251–264, 1986.



15. Krzysztof Apt and Dexter Kozen. Limits for automatic verification of finite-state concurrent systems. *Information Processing Letters*, 22:307–309, 1986.
16. Dexter Kozen. Fast parallel orthogonalization. *SIGACT News*, 18(2):47, Fall 1986.
17. Dexter Kozen. A finite model theorem for the propositional  $\mu$ -calculus. *Studia Logica*, 47(3):233–241, 1988.
18. Michael Ben-Or, Ephraim Feig, Dexter Kozen, and Prasoon Tiwari. Fast parallel algorithms for finding the roots of a polynomial with all real roots. *SIAM J. Comput.*, 17(6):1081–1092, 1988. doi:10.1137/0217069.
19. Dexter Kozen and Susan Landau. Polynomial decomposition algorithms. *J. Symb. Comput.*, 7:445–456, 1989.
20. Neil Immerman and Dexter Kozen. Definability with bounded number of bound variables. *Infor. and Comp.*, 83(2):121–139, November 1989.
21. Wilfred Chen, John Field, Dexter Kozen, William Pugh, Tim Teitelbaum, and Brad Vander Zanden. ALEX—an alexical programming language. In Ichikawa, Jungert, and Korfhage, editors, *Visual Languages and Applications*, pages 147–158. Plenum Press, 1990.
22. Dexter Kozen and Jerzy Tiuryn. Logics of programs. In J. van Leeuwen, editor, *Handbook of Theoretical Computer Science*, volume B, pages 789–840. North Holland, Amsterdam, 1990.
23. Dexter Kozen. On action algebras. In J. van Eijck and A. Visser, editors, *Logic and Information Flow*, pages 78–88. MIT Press, 1994.
24. Dexter Kozen. On the Myhill-Nerode theorem for trees. *Bull. Europ. Assoc. Theor. Comput. Sci.*, 47:170–173, June 1992.
25. Dexter Kozen. Partial automata and finitely generated congruences: An extension of Nerode’s theorem. In J. N. Crossley, J. B. Remmel, R. A. Shore, and M. E. Sweedler, editors, *Logical Methods: In Honor of Anil Nerode’s Sixtieth Birthday*, pages 490–511. Birkhäuser, Ithaca, New York, 1993.
26. Doug Ierardi and Dexter Kozen. Parallel resultant computation. In J. Reif, editor, *Synthesis of Parallel Algorithms*, pages 679–720. Morgan Kaufmann, 1993.
27. Dexter Kozen and Shmuel Zaks. Optimal bounds for the change-making problem. *Theor. Comput. Sci.*, 123:377–388, 1994.
28. Dexter Kozen. A completeness theorem for Kleene algebras and the algebra of regular events. *Infor. and Comput.*, 110(2):366–390, May 1994.

29. Dexter Kozen, Jens Palsberg, and Michael I. Schwartzbach. Efficient inference of partial types. *J. Comput. Syst. Sci.*, 49(2):306–324, October 1994.
30. Alexander Aiken, Dexter Kozen, and Edward Wimmers. Decidability of systems of set constraints with negative constraints. *Infor. and Comput.*, 122(1):30–44, October 1995.
31. Dexter Kozen, Jens Palsberg, and Michael I. Schwartzbach. Efficient recursive subtyping. *Mathematical Structures in Computer Science*, 5:113–125, 1995.
32. Dexter Kozen, Susan Landau, and Richard Zippel. Decomposition of algebraic functions. *Journal of Symbolic Computation*, 22(3):235–246, September 1996.
33. Nils Klarlund and Dexter Kozen. Rabin measures. *Chicago Journal of Theoretical Computer Science*, 1995(3), September 1995.
34. Dexter Kozen. On regularity-preserving functions. *Bull. Europ. Assoc. Theor. Comput. Sci.*, 58:131–138, February 1996.
35. Dexter Kozen. Rational spaces and set constraints. *Theoretical Computer Science*, 167:73–94, 1996.
36. Dexter Kozen and Kjartan Stefansson. Computing the Newtonian graph. *Journal of Symbolic Computation*, 24:125–136, 1997.
37. Dexter Kozen. Kleene algebra with tests. *ACM Trans. Programming Languages and Systems (TOPLAS’97)*, 19(3):427–443, May 1997. doi:10.1145/256167.256195.
38. Dexter Kozen. Set constraints and logic programming. *Information and Computation*, 142(1):2–25, April 1998.
39. Dexter Kozen. On Hoare logic and Kleene algebra with tests. *Trans. Computational Logic*, 1(1):60–76, July 2000.
40. Ernie Cohen and Dexter Kozen. A note on the complexity of propositional Hoare logic. *Trans. Computational Logic*, 1(1):171–174, July 2000.
41. Dexter Kozen and Jerzy Tiuryn. On the completeness of propositional Hoare logic. *Information Sciences*, 139(3–4):187–195, 2001.
42. David Harel, Dexter Kozen, and Jerzy Tiuryn. Dynamic logic. In D. M. Gabbay and F. Guenthner, editors, *Handbook of Philosophical Logic*, volume 4, pages 99–217. Kluwer, 2nd edition, 2002.
43. Dexter Kozen. On the complexity of reasoning in Kleene algebra. *Information and Computation*, 179:152–162, 2002.
44. Robert Givan, David McAllester, Carl Witty, and Dexter Kozen. Tarskian set constraints. *Information and Computation*, 174(2):105–131, May 2002.

45. Dexter Kozen. On Hoare logic, Kleene algebra, and types. In P. Gärdenfors, J. Woleński, and K. Kijania-Placek, editors, *In the Scope of Logic, Methodology, and Philosophy of Science: Volume 1 of the 11th Int. Congress Logic, Methodology and Philosophy of Science, Cracow, August 1999*, volume 315 of *Studies in Epistemology, Logic, Methodology, and Philosophy of Science*, pages 119–133. Kluwer, 2002.
46. Dexter Kozen and Jerzy Tiuryn. Substructural logic and partial correctness. *Trans. Computational Logic*, 4(3):355–378, July 2003.
47. Dexter Kozen. Automata on guarded strings and applications. *Matématica Contemporânea*, 24:117–139, 2003.
48. Dexter Kozen. Computational inductive definability. *Annals of Pure and Applied Logic*, 126(1–3):139–148, April 2004. Special issue: *Provinces of logic determined. Essays in the memory of Alfred Tarski*. Zofia Adamowicz, Sergei Artemov, Damian Niwinski, Ewa Orłowska, Anna Romanowska, and Jan Wolenski (eds.). doi:10.1016/j.apal.2003.10.013.
49. Dexter Kozen. Some results in dynamic model theory. *Science of Computer Programming*, 51(1–2):3–22, May 2004. Special issue: *Mathematics of Program Construction (MPC 2002)*. Eerke Boiten and Bernhard Möller (eds.). doi:10.1016/j.scico.2003.09.004.
50. Lucja Kot and Dexter Kozen. Kleene algebra and bytecode verification. *Electronic Notes in Theoretical Computer Science*, 141(1):221–236, December 2005.
51. Kamal Aboul-Hosn and Dexter Kozen. KAT-ML: An interactive theorem prover for Kleene algebra with tests. *Journal of Applied Non-Classical Logics*, 16(1–2):9–33, 2006.
52. Dexter Kozen and Nicholas Ruozzi. Applications of metric coinduction. *Logical Methods in Computer Science*, 5(3), September 2009. doi:10.2168/LMCS-5(3:10)2009.
53. Dexter Kozen. Coinductive proof principles for stochastic processes. *Logical Methods in Computer Science*, 3(4:8), 2007. doi:10.2168/LMCS-3(4:8)2007.
54. Kamal Aboul-Hosn and Dexter Kozen. Local variable scoping and Kleene algebra with tests. *J. Log. Algebr. Program.*, 2007. doi:10.1016/j.jlap.2007.10.007.
55. Fred B. Schneider, Dexter Kozen, Greg Morrisett, and Andrew C. Myers. Language-based security for malicious mobile code. In *Department of Defense Sponsored Information Security Research: New Methods for Protecting Against Cyber Threats*, pages 477–494. Wiley, 2007.
56. Dexter Kozen. Church-Rosser made easy. *Fundamenta Informaticae*, 103:129–136, 2010.

- 57. Dexter Kozen. Halting and equivalence of program schemes in models of arbitrary theories. In Andreas Blass, Nachum Dershowitz, and Wolfgang Reisig, editors, *Fields of Logic and Computation: Essays Dedicated to Yuri Gurevich on the Occasion of His 70th Birthday*, volume 6300 of *Lecture Notes in Computer Science*, pages 463–469. Springer–Verlag, August 2010.
- 58. Dexter Kozen and Ganesh Ramanarayanan. Publication/citation: A proof-theoretic approach to mathematical knowledge management. In Johan van Benthem, Amitabha Gupta, and Eric Pacuit, editors, *Games, Norms, and Reasons: Logic at the Crossroads*, volume 353 of *Synthese Library*, pages 151–161. Dordrecht, Springer Science and Business Media, 2011.
- 59. Jean-Baptiste Jeannin and Dexter Kozen. Computing with capsules. *J. Automata, Languages and Combinatorics*, 17(2–4):185–204, 2012.
- 60. Dexter Kozen and Alexandra Silva. On Moessner’s theorem. *The American Mathematical Monthly*, 120(2):131–139, February 2013.
- 61. Henk Barendregt, Venanzio Capretta, and Dexter Kozen. Reflection in the Chomsky hierarchy. *J. Automata, Languages and Combinatorics*, 18(1):53–60, 2013.
- 62. Dexter Kozen. Optimal coin flipping. In F. van Breugel et al., editor, *Panangaden Festschrift*, volume 8464 of *Lecture Notes in Computer Science*, pages 407–426. Springer, May 2014.
- 63. Jean-Baptiste Jeannin, Dexter Kozen, and Alexandra Silva. Well-founded coalgebras, revisited. *Mathematical Structures in Computer Science*, FirstView:1–21, February 2016. doi:10.1017/S0960129515000481.
- 64. Dexter Kozen and Alexandra Silva. Practical coinduction. *Mathematical Structures in Computer Science*, 27:1132–1152, 2017. doi:10.1017/S0960129515000493.
- 65. Niels Bjørn Bugge Grathwohl, Fritz Henglein, and Dexter Kozen. Infinitary axiomatization of the equational theory of context-free languages. *Fundamenta Informaticae*, 150:241–257, 2017. doi:10.3233/FI-2017-1469.
- 66. Jean-Baptiste Jeannin, Dexter Kozen, and Alexandra Silva. CoCaml: Functional programming with regular coinductive types. *Fundamenta Informaticae*, 150:347–377, 2017. doi:10.3233/FI-2017-1473.
- 67. Dexter Kozen. On the coalgebraic theory of Kleene algebra with tests. In Can Başkent, Lawrence S. Moss, and Ramaswamy Ramanujam, editors, *Rohit Parikh on Logic, Language and Society*, volume 11 of *Outstanding Contributions to Logic*, pages 279–298. Springer, March 2017.

- 68. Dexter Kozen, Konstantinos Mamouras, and Alexandra Silva. Completeness and incompleteness in nominal Kleene algebra. *J. Logical and Algebraic Methods in Programming*, 91:17–32, 2017. doi:10.1016/j.jlamp.2017.06.002.
- 69. Dexter Kozen. Natural transformations as rewrite rules and monad composition. *Logical Methods in Computer Science*, 15(1):1–12, January 2019. doi:10.23638/LMCS-15(1):1)2019.
- 70. Zoltán Ésik and Dexter Kozen. On free  $\omega$ -continuous and regular ordered algebras. *Logical Methods in Computer Science*, 15(4):1–16, October 2019. URL: <https://lmcs.episciences.org/5876>.
- 71. Dexter Kozen and Alexandra Silva. Left-handed completeness. *Theoretical Computer Science*, 807:220–233, 6 February 2020. URL: <http://www.sciencedirect.com/science/article/pii/S0304397519306838>, doi:10.1016/j.tcs.2019.10.040.
- 72. Mark Bickford, Dexter Kozen, and Alexandra Silva. Formalizing Moessner’s theorem and generalizations in NUPRL. *Journal of Logical and Algebraic Methods in Programming*, (JLAMP 100713):1–12, 2021. doi:10.1016/j.jlamp.2021.100713.
- 73. Dexter Kozen and Matvey Soloviev. Coalgebraic tools for randomness-conserving protocols. *J. Logical and Algebraic Methods in Programming*, 125:100734, February 2022. doi:10.1016/j.jlamp.2021.100734.
- 74. Anshuman Mohan, Yunhe Liu, Nate Foster, Tobias Kappé, and Dexter Kozen. Formal abstractions for packet scheduling. *Proc. ACM Program. Lang.*, 7(OOPSLA2):1338–1362, October 2023. Article 269. doi:10.1145/3622845.

## Conference Papers

- 75. Dexter Kozen. On parallelism in Turing machines. In *Proc. 17th Symp. Found. Comput. Sci.*, pages 89–97. IEEE, October 1976.
- 76. Dexter Kozen. Complexity of finitely presented algebras. In *Proc. 9th Symp. Theory of Comput.*, pages 164–177. ACM, May 1977.
- 77. Dexter Kozen. Lower bounds for natural proof systems. In *Proc. 18th Symp. Found. Comput. Sci.*, pages 254–266. IEEE, October 1977.
- 78. Manuel Blum and Dexter Kozen. On the power of the compass. In *Proc. 19th Symp. Found. Comput. Sci.*, pages 132–142. IEEE, October 1978.
- 79. Dexter Kozen. Indexings of subrecursive classes. In *Proc. 10th Symp. Theory of Comput.*, pages 287–295. ACM, May 1978.
- 80. Dexter Kozen. Automata and planar graphs. In *Proc. 2nd Symp. Fund. Comput. Theory*, pages 243–254, Berlin, September 1979.

81. Dexter Kozen. Semantics of probabilistic programs. In *Proc. 20th Symp. Found. Comput. Sci.*, pages 101–114. IEEE, October 1979.
82. Dexter Kozen. On the duality of dynamic algebras and Kripke models. In E. Engeler, editor, *Proc. Workshop on Logic of Programs*, volume 125 of *Lecture Notes in Computer Science*, pages 1–11. Springer-Verlag, 1979.
83. Dexter Kozen. Dynamic algebra. In E. Engeler, editor, *Proc. Workshop on Logic of Programs*, volume 125 of *Lecture Notes in Computer Science*, pages 102–144. Springer-Verlag, 1979. Chapter of *Propositional dynamic logics of programs: A survey* by Rohit Parikh.
84. Dexter Kozen. A representation theorem for models of  $*$ -free PDL. In *Proc. 7th Colloq. Automata, Languages, and Programming*, pages 351–362. EATCS, July 1980.
85. David Harel, Dexter Kozen, and Rohit Parikh. Process logic: Expressiveness, decidability, completeness. In *Proc. 21st Symp. Found. Comput. Sci.*, pages 129–142. IEEE, October 1980.
86. Dexter Kozen. On induction vs.  $*$ -continuity. In Kozen, editor, *Proc. Workshop on Logic of Programs*, volume 131 of *Lecture Notes in Computer Science*, pages 167–176, New York, 1981. Springer-Verlag.
87. Dexter Kozen. Results on the propositional  $\mu$ -calculus. In *Proc. 9th Int. Colloq. Automata, Languages, and Programming*, pages 348–359, Aarhus, Denmark, July 1982. EATCS.
88. David Harel and Dexter Kozen. A programming language for the inductive sets, and applications. In *Proc. 9th Int. Colloq. Automata, Languages, and Programming*, pages 313–329, Aarhus, Denmark, July 1982. EATCS.
89. Dexter Kozen and Rohit Parikh. A decision procedure for the propositional  $\mu$ -calculus. In Clarke and Kozen, editors, *Proc. Workshop on Logics of Programs*, volume 164 of *Lecture Notes in Computer Science*, pages 313–325. Springer-Verlag, 1983.
90. Dexter Kozen. A probabilistic PDL. In *Proc. 15th Symp. Theory of Comput.*, pages 291–297. ACM, April 1983.
91. Corrado Böhm and Dexter Kozen. Eliminating recursion over acyclic data structures in functional programs. In *4th Int. Workshop on the Semantics of Programming Languages, Bull. EATCS*, volume 20, page 205, Bad Honnef, June 1983. EATCS.
92. Michael Ben-Or, Dexter Kozen, and John Reif. The complexity of elementary algebra and geometry. In *Proc. 16th Symp. Theory of Comput.*, pages 457–464. ACM, May 1984.

93. Dexter Kozen. Pebblings, edgings, and equational logic. In *Proc. 16th Symp. Theory of Computing (STOC'84)*, pages 428–435. ACM, May 1984.
94. Nissim Francez and Dexter Kozen. Generalized fair termination. In *Proc. 11th Symp. Principles of Programming Languages (POPL'84)*, pages 46–53, Salt Lake City, January 1984. ACM.
95. Dexter Kozen and Chee K. Yap. Algebraic cell decomposition in *NC*. In *Proc. 26th Symp. Foundations of Computer Science (FOCS'85)*, pages 515–521. IEEE, October 1985.
96. Dexter Kozen, Umesh Vazirani, and Vijay Vazirani. *NC* algorithms for comparability graphs, interval graphs, and unique perfect matching. In Maheshwari, editor, *Proc. 5th Conf. Found. Software Technology and Theor. Comput. Sci.*, volume 206 of *Lecture Notes in Computer Science*, pages 496–503, New Delhi, December 1985. Springer-Verlag.
97. Michael Ben-Or, Ephraim Feig, Dexter Kozen, and Prasoon Tiwari. Fast parallel algorithms for finding the roots of a polynomial with all real roots. In *Proc. 18th Symp. Theory of Computing (STOC'86)*, pages 340–349. ACM, May 1986.
98. Neil Immerman and Dexter Kozen. Definability with bounded number of bound variables. In *Proc. 2nd Symp. Logic in Comput. Sci. (LICS'87)*, pages 236–244. IEEE, June 1987.
99. Joachim von zur Gathen, Dexter Kozen, and Susan Landau. Functional decomposition of polynomials. In *Proc. 28th Symp. Foundations of Computer Science (FOCS'87)*, pages 127–131. IEEE, November 1987.
100. Wilfred Chen, John Field, Dexter Kozen, William Pugh, Tim Teitelbaum, and Brad Vander Zanden. ALEX—an alexical programming language. In *Proc. 1987 Workshop on Visual Languages*, pages 315–329, Linköping, Sweden, August 1987.
101. Dexter Kozen. On Kleene algebras and closed semirings. In Rován, editor, *Proc. Math. Found. Comput. Sci. (MFCS'90)*, volume 452 of *Lecture Notes in Computer Science*, pages 26–47, Banska-Bystrica, Slovakia, 1990. Springer-Verlag.
102. Dexter Kozen. A completeness theorem for Kleene algebras and the algebra of regular events. In *Proc. 6th Symp. Logic in Comput. Sci. (LICS'91)*, pages 214–225, Amsterdam, July 1991. IEEE.
103. Nils Klarlund and Dexter Kozen. Rabin measures and their application to fairness and automata theory. In *Proc. 6th Symp. Logic in Comput. Sci. (LICS'91)*, pages 256–265. IEEE, July 1991.

104. Dexter Kozen, Jens Palsberg, and Michael I. Schwartzbach. Efficient inference of partial types. In *Proc. 33rd Symp. Found. Comput. Sci. (FOCS'92)*, pages 363–371. IEEE, October 1992.
105. Dexter Kozen and Shmuel Zaks. Optimal bounds for the change-making problem. In *Proc. 20th Int. Colloq. on Automata, Languages, and Programming (ICALP'93)*, volume 700 of *Lecture Notes in Computer Science*, pages 150–161, Lund, Sweden, July 1993. EATCS, Springer-Verlag.
106. Dexter Kozen, Jens Palsberg, and Michael I. Schwartzbach. Efficient recursive subtyping. In *Proc. 20th Symp. Princip. Programming Lang. (POPL'93)*, pages 419–428, Charleston, SC, January 1993. ACM.
107. Alexander Aiken, Dexter Kozen, Moshe Vardi, and Edward Wimmers. The complexity of set constraints. In E. Börger, Y. Gurevich, and K. Meinke, editors, *Proc. 1993 Conf. Computer Science Logic (CSL'93)*, volume 832 of *Lecture Notes in Computer Science*, pages 1–17, Swansea, U. K., September 1993. Eur. Assoc. Comput. Sci. Logic, Springer-Verlag.
108. Dexter Kozen and Kjartan Stefánsson. Computing the Newtonian graph. In *Trans. 11th Army Conference on Applied Math. and Computing*, pages 55–69. Army Research Office, June 1993.
109. Dexter Kozen, Susan Landau, and Richard Zippel. Decomposition of algebraic functions. In L. Adleman and M.-D. Huang, editors, *Proc. First Algorithmic Number Theory Symposium (ANTS)*, volume 877 of *Lecture Notes in Computer Science*, pages 80–92, Ithaca, New York, May 1994. Mathematical Sciences Institute, Springer-Verlag.
110. Dexter Kozen. Logical aspects of set constraints. In E. Börger, Y. Gurevich, and K. Meinke, editors, *Proc. 1993 Conf. Computer Science Logic (CSL'93)*, volume 832 of *Lecture Notes in Computer Science*, pages 175–188, Swansea, U. K., September 1993. Eur. Assoc. Comput. Sci. Logic, Springer-Verlag.
111. Dexter Kozen. Set constraints and logic programming. In J.-P. Jouannaud, editor, *Proc. First Conf. Constraints in Computational Logics (CCL'94)*, volume 845 of *Lecture Notes in Computer Science*, pages 302–303, Munich, Germany, September 1994. ESPRIT, Springer-Verlag.
112. Jin-Yi Cai, W. H. J. Fuchs, Dexter Kozen, and Zicheng Liu. Efficient average-case algorithms for the modular group. In *Proc. 35th Symp. Found. Comput. Sci. (FOCS'94)*, pages 143–152. IEEE, November 1994.
113. Dexter Kozen. Efficient resolution of singularities of plane curves. In P. S. Thiagarajan, editor, *Proc. 14th Conf. Foundations of Software Technology and Theoretical Computer Science*, volume 880 of *Lecture Notes in Computer Science*, pages 1–11, Madras, India, December 1994. Springer-Verlag.



- 114. Dexter Kozen. Kleene algebra with tests and commutativity conditions. In T. Margaria and B. Steffen, editors, *Proc. Second Int. Workshop Tools and Algorithms for the Construction and Analysis of Systems (TACAS'96)*, volume 1055 of *Lecture Notes in Computer Science*, pages 14–33, Passau, Germany, March 1996. Springer-Verlag.
- 115. Dexter Kozen. Rational spaces and set constraints. In Peter D. Mosses, Mogens Nielsen, and Michael I. Schwartzbach, editors, *Proc. Sixth Int. Joint Conf. Theory and Practice of Software Develop. (TAPSOFT'95)*, volume 915 of *Lecture Notes in Computer Science*, pages 42–61, Aarhus, Denmark, May 1995. Springer-Verlag.
- 116. Allan Cheng and Dexter Kozen. A complete Gentzen-style axiomatization for set constraints. In F. Meyer auf der Heide and B. Monien, editors, *Proc. 23rd Int. Colloq. Automata, Languages, and Programming (ICALP'96)*, volume 1099 of *Lecture Notes in Computer Science*, pages 134–145, Paderborn, Germany, July 1996. Eur. Assoc. for Theoretical Comput. Sci., Springer-Verlag.
- 117. Robert Givan, Dexter Kozen, David McAllester, and Carl Witty. Tarskian set constraints. In *Proc. 11th Symp. Logic in Comput. Sci. (LICS'96)*, pages 138–147, New Brunswick, NJ, July 1996. IEEE.
- 118. Dexter Kozen and Frederick Smith. Kleene algebra with tests: Completeness and decidability. In D. van Dalen and M. Bezem, editors, *Proc. 10th Int. Workshop Computer Science Logic (CSL'96)*, volume 1258 of *Lecture Notes in Computer Science*, pages 244–259, Utrecht, The Netherlands, September 1996. Springer-Verlag.
- 119. Dexter Kozen. On the complexity of reasoning in Kleene algebra. In *Proc. 12th Symp. Logic in Comput. Sci. (LICS'97)*, pages 195–202, Los Alamitos, Ca., June 1997. IEEE.
- 120. Dexter Kozen, Yaron Minsky, and Brian Smith. Efficient algorithms for optimal video transmission. In James A. Storer and Martin Cohn, editors, *Proc. Data Compression Conference (DCC'98)*, pages 229–238, Snowbird, Utah, March 1998. IEEE.
- 121. Kenneth Andrews, Chris Heegard, and Dexter Kozen. Interleaver design methods for turbo codes. In *Proc. International Symposium on Information Theory (ISIT'98)*, page 420. IEEE, August 1998.
- 122. Mark Hopkins and Dexter Kozen. Parikh's theorem in commutative Kleene algebra. In *Proc. 14th Conf. Logic in Computer Science (LICS'99)*, pages 394–401. IEEE, July 1999.
- 123. Dexter Kozen. Language-based security. In M. Kutylowski, L. Pacholski, and T. Wierzbicki, editors, *Proc. Conf. Mathematical Foundations of Computer Science (MFCS'99)*, volume 1672 of *Lecture Notes in Computer Science*, pages 284–298. Springer-Verlag, September 1999.

- 124. Dexter Kozen. On Hoare logic and Kleene algebra with tests. In *Proc. Conf. Logic in Computer Science (LICS'99)*, pages 167–172. IEEE, July 1999.
- 125. Dexter Kozen and Jerzy Tiuryn. On the completeness of propositional Hoare logic. In J. Desharnais, editor, *Proc. 5th Int. Seminar Relational Methods in Computer Science (RelMiCS'00)*, pages 195–202, January 2000.
- 126. Dexter Kozen and Maria-Cristina Patron. Certification of compiler optimizations using Kleene algebra with tests. In John Lloyd, Veronica Dahl, Ulrich Furbach, Manfred Kerber, Kung-Kiu Lau, Catuscia Palamidessi, Luis Moniz Pereira, Yehoshua Sagiv, and Peter J. Stuckey, editors, *Proc. 1st Int. Conf. Computational Logic (CL'00)*, volume 1861 of *Lecture Notes in Artificial Intelligence*, pages 568–582, London, July 2000. Springer-Verlag.
- 127. Dexter Kozen. Myhill-Nerode relations on automatic systems and the completeness of Kleene algebra. In Afonso Ferreira and Horst Reichel, editors, *Proc. 18th Symp. Theoretical Aspects of Computer Science (STACS'01)*, volume 2010 of *Lecture Notes in Computer Science*, pages 27–38, Dresden, Germany, February 2001. Springer-Verlag.
- 128. Dexter Kozen and Jerzy Tiuryn. Intuitionistic linear logic and partial correctness. In *Proc. 16th Symp. Logic in Comput. Sci. (LICS'01)*, pages 259–268. IEEE, June 2001.
- 129. Dexter Kozen and Matt Stillerman. Eager class initialization for Java. In W. Damm and E.R. Olderog, editors, *Proc. 7th Int. Symp. Formal Techniques in Real-Time and Fault Tolerant Systems (FTRTFT'02)*, volume 2469 of *Lecture Notes in Computer Science*, pages 71–80. IFIP, Springer-Verlag, Sept. 2002.
- 130. Dexter Kozen. On two letters versus three. In Zoltán Ésik and Anna Ingólfssdóttir, editors, *Proc. Workshop on Fixed Points in Computer Science (FICS'02)*, pages 44–50, July 2002.
- 131. Dexter Kozen. Some results in dynamic model theory. In E. A. Boiten and B. Möller, editors, *Proc. Conf. Mathematics of Program Construction (MPC'02)*, volume 2386 of *Lecture Notes in Computer Science*, page 21. Springer-Verlag, July 2002.
- 132. Frank Adelstein, Dexter Kozen, and Matt Stillerman. Malicious code detection for open firmware. In *Proc. 18th Computer Security Applications Conf. (ACSAC'02)*, pages 403–412, December 2002.
- 133. Matt Stillerman and Dexter Kozen. Demonstration: Efficient code certification for open firmware. In *Proc. 3rd DARPA Information Survivability Conference and Exposition (DISCEX III)*, volume 2, pages 147–148. IEEE, IEEE Computer Society, Los Alamitos, CA, April 2003.

- 134. Kamal Aboul-Hosn and Dexter Kozen. KAT-ML: An interactive theorem prover for Kleene algebra with tests. In Boris Konev and Renate Schmidt, editors, *Proc. 4th Int. Workshop on the Implementation of Logics (WIL'03)*, pages 2–12. University of Manchester, September 2003.
- 135. Chavdar Botev, Hubert Chao, Theodore Chao, Yim Cheng, Raymond Doyle, Sergey Grankin, Jon Guarino, Saikat Guha, PeiChen Lee, Dan Perry, Christopher Re, Ilya Rifkin, Tingyan Yuan, Dora Abdullah, Kathy Carpenter, David Gries, Dexter Kozen, Andrew Myers, David Schwartz, and Jayavel Shanmugasundaram. Supporting workflow in a course management system. In W. Dann et al., editor, *Proc. 36th Technical Symposium on Computer Science Education (SIGCSE'05)*, pages 262–266. ACM SIGCSE, February 2005.
- 136. Lucja Kot and Dexter Kozen. Kleene algebra and bytecode verification. In Fausto Spoto, editor, *Proc. 1st Workshop Bytecode Semantics, Verification, Analysis, and Transformation (Bytecode'05)*, pages 201–215, April 2005.
- 137. Dexter Kozen, Christoph Kreitz, and Eva Richter. Automating proofs in category theory. In *Proc. 3rd Int. Joint Conf. Automated Reasoning (IJCAR'06)*, number 4130 in Lecture Notes in AI, pages 392–407. Springer, August 2006.
- 138. Kamal Aboul-Hosn and Dexter Kozen. Relational semantics for higher-order programs. In Tarmo Uustalu, editor, *Proc. 8th Int. Conf. Mathematics of Program Construction (MPC'06)*, volume 4014 of *Lecture Notes in Computer Science*, pages 29–48. Springer, July 2006.
- 139. Dexter Kozen. Coinductive proof principles for stochastic processes. In Rajeev Alur, editor, *Proc. 21st Symp. Logic in Computer Science (LICS'06)*, pages 359–366. IEEE, August 2006.
- 140. Dexter Kozen. On the representation of Kleene algebras with tests. In R. Královic and P. Urzyczyn, editors, *Proc. Conf. Mathematical Foundations of Computer Science (MFCS'06)*, volume 4162 of *Lecture Notes in Computer Science*, pages 73–83. Springer, August 2006.
- 141. Kamal Aboul-Hosn and Dexter Kozen. Local variable scoping and Kleene algebra with tests. In R. A. Schmidt, editor, *Proc. 9th Int. Conf. Relational Methods in Computer Science and 4th Int. Workshop Applications of Kleene Algebra (RelMiCS/KA'06)*, volume 4136 of *Lecture Notes in Computer Science*, pages 78–90. Springer, August 2006.
- 142. Dexter Kozen and Nicholas Ruoizzi. Applications of metric coinduction. In T. Mossakowski et al., editor, *Proc. 2nd Conf. Algebra and Coalgebra in Computer Science (CALCO 2007)*, volume 4624 of *Lecture Notes in Computer Science*, pages 327–341. Springer, August 2007.

- 143. Daniel Sheldon, M. A. Saleh Elmohamed, and Dexter Kozen. Collective inference on Markov models for modeling bird migration. In J. Platt, D. Koller, Y. Singer, and S. Roweis, editors, *Advances in Neural Information Processing Systems (NIPS'07)*, volume 20, December 2007.
- 144. Dexter Kozen and Wei-Lung (Dustin) Tseng. The Böhm-Jacopini theorem is false, propositionally. In P. Audebaud and C. Paulin-Mohring, editors, *Proc. 9th Int. Conf. Mathematics of Program Construction (MPC'08)*, volume 5133 of *Lecture Notes in Computer Science*, pages 177–192. Springer, July 2008.
- 145. Dexter Kozen. Nonlocal flow of control and Kleene algebra with tests. In *Proc. 23rd IEEE Symp. Logic in Computer Science (LICS'08)*, pages 105–117, June 2008.
- 146. Nikos Karampatziakis and Dexter Kozen. Learning prediction suffix trees with Winnow. In Léon Bottou and Michael Littman, editors, *Proc. 26th Int. Conf. Machine Learning (ICML'09)*, pages 489–496, Montreal, Canada, June 2009. Omnipress.
- 147. Dexter Kozen. Realization of coinductive types. In Michael Mislove and Joël Ouaknine, editors, *Proc. 27th Conf. Math. Found. Programming Semantics (MFPS XXVII)*, pages 148–155, Pittsburgh, PA, May 2011. Elsevier Electronic Notes in Theoretical Computer Science.
- 148. Dexter Kozen. New. In Ulrich Berger and Michael Mislove, editors, *Proc. 28th Conf. Math. Found. Programming Semantics (MFPS XXVIII)*, pages 13–38, Bath, England, June 2012. Elsevier Electronic Notes in Theoretical Computer Science.
- 149. Jean-Baptiste Jeannin and Dexter Kozen. Capsules and separation. In Nachum Dershowitz, editor, *Proc. 27th ACM/IEEE Symp. Logic in Computer Science (LICS'12)*, pages 425–430, Dubrovnik, Croatia, June 2012. IEEE.
- 150. Jean-Baptiste Jeannin and Dexter Kozen. Computing with capsules. In Martin Kutrib, Nelma Moreira, and Rogério Reis, editors, *Proc. Conf. Descriptive Complexity of Formal Systems (DCFS 2012)*, volume 7386 of *Lecture Notes in Computer Science*, pages 1–19, Braga, Portugal, July 2012. Springer.
- 151. Dexter Kozen and Alexandra Silva. Left-handed completeness. In Wolfram Kahl and Timothy G. Griffin, editors, *Proc. Conf. Relational and Algebraic Methods in Computer Science (RAMiCS 2012)*, volume 7560 of *Lecture Notes in Computer Science*, pages 162–178, Cambridge, UK, September 2012. Springer.
- 152. Jean-Baptiste Jeannin, Dexter Kozen, and Alexandra Silva. Language constructs for non-well-founded computation. In Matthias Felleisen and Philippa Gardner, editors, *22nd European Symposium on Programming (ESOP 2013)*, volume 7792 of *Lecture Notes in Computer Science*, pages 61–80, Rome, Italy, March 2013. Springer.

- 153. Dexter Kozen, Kim G. Larsen, Radu Mardare, and Prakash Panangaden. Stone duality for Markov processes. In Orna Kupferman, editor, *Proc. 28th IEEE/ACM Symp. Logic in Computer Science (LICS 2013)*, pages 321–330, New Orleans, June 2013. IEEE/ACM.
- 154. Dexter Kozen, Radu Mardare, and Prakash Panangaden. Strong completeness for Markovian logics. In Krishnendu Chatterjee and Jiri Sgall, editors, *Proc. 38th Symp. Mathematical Foundations of Computer Science (MFCS 2013)*, volume 8087 of *Lect. Notes in Computer Science*, pages 655–666, Klosterneuburg, Austria, August 2013. Springer.
- 155. Niels Bjørn Bugge Grathwohl, Fritz Henglein, and Dexter Kozen. Infinitary axiomatization of the equational theory of context-free languages. In David Baelde and Arnaud Carayol, editors, *Proc. 9th Workshop Fixed Points in Computer Science (FICS 2013)*, volume 126 of *Electronic Proceedings in Theoretical Computer Science*, pages 44–55, Torino, Italy, September 2013.
- 156. Dexter Kozen and Konstantinos Mamouras. Kleene algebra with products and iteration theories. In Simona Ronchi Della Rocca, editor, *Proc. 22nd EACSL Conf. Computer Science Logic (CSL’13)*, volume 23 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 415–431, Torino, Italy, September 2013. Dagstuhl Publishing.
- 157. Carolyn Jane Anderson, Nate Foster, Arjun Guha, Jean-Baptiste Jeannin, Dexter Kozen, Cole Schlesinger, and David Walker. NetKAT: Semantic foundations for networks. In *Proc. 41st ACM SIGPLAN-SIGACT Symp. Principles of Programming Languages (POPL’14)*, pages 113–126, San Diego, California, USA, January 2014. ACM.
- 158. Dexter Kozen, Radu Mardare, and Prakash Panangaden. A metrized duality theorem for Markov processes. In Bart Jacobs, Alexandra Silva, and Sam Staton, editors, *Proc. 30th Conf. Mathematical Foundations of Programming Semantics (MFPS’14)*, *Electronic Notes in Theoretical Computer Science*, pages 215–231. Elsevier, June 2014.
- 159. Dexter Kozen and Konstantinos Mamouras. Kleene algebra with equations. In Javier Esparza, Pierre Fraigniaud, Thore Husfeldt, and Elias Koutsoupias, editors, *41st Int. Colloq. Automata, Languages, and Programming (ICALP 2014), Part II*, volume 8573 of *Lecture Notes in Computer Science*, pages 280–292, Copenhagen, Denmark, July 2014. EATCS, Springer.
- 160. Niels Bjørn Bugge Grathwohl, Dexter Kozen, and Konstantinos Mamouras. KAT + B! In Matthias Baaz, Thomas Eiter, and Helmut Veith, editors, *Proc. Joint Meeting of the 23rd EACSL Conf. Computer Science Logic (CSL 2014) and 29th ACM/IEEE Symp. Logic in Computer Science (LICS 2014)*, Vienna, Austria, July 14–18 2014. EACSL and ACM/IEEE.

- 161. Dexter Kozen. NetKAT: A formal system for the verification of networks. In Jacques Garrigue, editor, *Proc. 12th Asian Symposium on Programming Languages and Systems (APLAS 2014)*, volume 8858 of *Lecture Notes in Computer Science*, Singapore, November 17–19 2014. Asian Association for Foundation of Software (AAFS), Springer.
- 162. Nate Foster, Dexter Kozen, Mae Milano, Alexandra Silva, and Laure Thompson. A coalgebraic decision procedure for NetKAT. In *Proc. 42nd ACM SIGPLAN-SIGACT Symp. Principles of Programming Languages (POPL'15)*, pages 343–355, Mumbai, India, January 2015. ACM.
- 163. Dexter Kozen, Konstantinos Mamouras, and Alexandra Silva. Completeness and incompleteness in nominal Kleene algebra. In Wolfram Kahl et al., editor, *Relational and Algebraic Methods in Computer Science (RAMiCS 2015)*, volume 9348 of *Lecture Notes in Computer Science*, pages 51–66, Braga, Portugal, September 2015. Springer.
- 164. Dexter Kozen, Konstantinos Mamouras, Daniela Petrisan, and Alexandra Silva. Nominal Kleene coalgebra. In M. M. Halldórsson, K. Iwama, N. Kobayashi, and B. Speckmann, editors, *Proc. 42nd Int. Colloq. Automata, Languages, and Programming, Part II (ICALP 2015)*, volume 9135 of *Lecture Notes in Computer Science*, pages 290–302, Kyoto, Japan, July 6–10 2015. EATCS, Springer.
- 165. Nate Foster, Dexter Kozen, Konstantinos Mamouras, Mark Reitblatt, and Alexandra Silva. Probabilistic NetKAT. In Peter Thiemann, editor, *25th European Symposium on Programming (ESOP 2016)*, volume 9632 of *Lecture Notes in Computer Science*, pages 282–309, Eindhoven, The Netherlands, April 2016. Springer. doi:10.1007/978-3-662-49498-1\_12.
- 166. Dexter Kozen. Kolmogorov extension, martingale convergence, and compositionality of processes. In N. Shankar, editor, *Proc. 31st ACM-IEEE Symp. Logic in Computer Science (LICS 2016)*, pages 692–699, New York City, July 2016. ACM.
- 167. Steffen Smolka, Praveen Kumar, Nate Foster, Dexter Kozen, and Alexandra Silva. Cantor meets Scott: Domain-theoretic foundations for probabilistic network programming. In *Proc. 44th ACM SIGPLAN Symp. Principles of Programming Languages (POPL'17)*, pages 557–571, Paris, France, January 2017. ACM. doi:10.1145/3009837.3009843.
- 168. Lutz Schröder, Dexter Kozen, Stefan Milius, and Thorsten Wißmann. Nominal automata with name binding. In J. Esparza and A. S. Murawski, editors, *20th Int. Conf. Foundations of Software Science and Computation Structures (FOSSACS 2017)*, volume 10203 of *Lecture Notes in Computer Science*, pages 124–142. Springer, April 2017. doi:10.1007/978-3-662-54458-7\_8.
- 169. Dexter Kozen and Francisco Mota. Borel coalgebra and non-wellfounded logic. In *Proc. 27th Conf. Math. Found. Programming Semantics (MFPS XXXIII)*, Ljubljana, Slovenia, June 2017. Elsevier Electronic Notes in Theoretical Computer Science.

- 170. Robert Furber, Dexter Kozen, Kim Larsen, Radu Mardare, and Prakash Panangaden. Unrestricted Stone duality for Markov processes. In *Proc. 32nd Conf. Logic in Computer Science (LICS 2017)*. ACM SIGLOG and IEEE, June 2017.
- 171. Giorgio Bacci, Robert Furber, Dexter Kozen, Radu Mardare, Prakash Panangaden, and Dana Scott. Boolean-valued semantics for the stochastic  $\lambda$ -calculus. In *Proc. 33rd Conf. Logic in Computer Science (LICS 2018)*, Oxford, UK, July 2018. ACM SIGLOG and IEEE.
- 172. Dexter Kozen and Matvey Soloviev. Coalgebraic tools for randomness-conserving protocols. In J. Desharnais, W. Guttman, and S. Joosten, editors, *Relational and Algebraic Methods in Computer Science (RAMiCS 2018)*, volume 11194 of *LNCS*, pages 298–313. Springer, October 2018.
- 173. Steffen Smolka, Praveen Kumar, David Kahn, Nate Foster, Justin Hsu, Dexter Kozen, and Alexandra Silva. Scalable verification of probabilistic networks. In *Programming Language Design and Implementation (PLDI'19)*, pages 190–203, June 2019.
- 174. Steffen Smolka, Nate Foster, Justin Hsu, Tobias Kappé, Dexter Kozen, and Alexandra Silva. Guarded Kleene algebra with tests: Verification of uninterpreted programs in nearly linear time. In *Proc. 47th ACM SIGPLAN Symp. Principles of Programming Languages (POPL'20)*, pages 61:1–28, New Orleans, January 2020. ACM.
- 175. Fredrik Dahlqvist and Dexter Kozen. Semantics of higher-order probabilistic programs with conditioning. In *Proc. 47th ACM SIGPLAN Symp. Principles of Programming Languages (POPL'20)*, pages 57:1–29, New Orleans, January 2020. ACM.
- 176. Pedro Amorim, Dexter Kozen, Radu Mardare, Prakash Panangaden, and Michael Roberts. Universal semantics for the stochastic lambda-calculus. In *Proc. 36th Symp. Logic in Computer Science (LICS'21)*. ACM/IEEE, June-July 2021.
- 177. Todd Schmid, Tobias Kappé, Dexter Kozen, and Alexandra Silva. Guarded Kleene algebra with tests: Coequations, coinduction, and completeness. In *Int. Colloq. Automata, Languages and Programming (ICALP'21)*. EATCS, July 2021.
- 178. Jana Wagemaker, Nate Foster, Tobias Kappé, Dexter Kozen, Jurriaan Rot, and Alexandra Silva. Concurrent NetKAT: Modeling and analyzing stateful, concurrent networks. In *31st European Symposium on Programming (ESOP'22)*, April 2022.
- 179. Keri D'Angelo and Dexter Kozen. Abstract Huffman coding and PIFO tree embeddings. In *Data Compression Conference (DCC '23)*, March 2023.
- 180. Wojciech Różowski, Tobias Kappé, Dexter Kozen, Todd Schmid, and Alexandra Silva. Probabilistic guarded KAT modulo bisimilarity: Completeness and complexity. In Kousha Etessami, Uriel Feige, and Gabriele Puppis, editors, *Proc. 50th Int. Colloq.*

on Automata, Languages, and Programming (ICALP'23), volume 261 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 136:1–136:20, Paderborn, Germany, July 2023.

181. Dexter Kozen, Alexandra Silva, and Erik Voogd. Joint distributions in probabilistic semantics. In *Proc. 39th Conf. Mathematical Foundations of Programming Semantics (MFPS XXXIX)*, Bloomington, Indiana, June 2023.
182. Dexter Kozen and Alexandra Silva. Multisets and distributions. In Venanzio Capretta, Robbert Krebbers, and Freek Wiedijk, editors, *Logics and Type Systems in Theory and Practice: Essays Dedicated to Herman Geuvers on The Occasion of His 60th Birthday*, volume 14560, pages 168–187. Springer LNCS, May 2024.
183. Jan Rooduijn, Alexandra Silva, and Dexter Kozen. A cyclic proof system for guarded Kleene algebra with tests. In Christoph Benzmüller, Marijn Heule, and Renate A. Schmidt, editors, *Automated Reasoning 12th Int. Joint Conference (IJCAR 2024)*, volume 14739. Springer LNCS, July 2024.
184. Noam Zilberstein, Dexter Kozen, Alexandra Silva, and Joseph Tassarotti. A demonic outcome logic for randomized nondeterminism. In *Proc. 52nd ACM SIGPLAN Symp. Principles of Programming Languages (POPL'25)*, pages 19:1–30, Denver, January 2025. ACM.
185. Pedro H. Azevedo de Amorim, Leon Witzman, and Dexter Kozen. Classical linear logic in perfect Banach lattices. In Jörg Endrullis and Sylvain Schmitz, editors, *33rd EACSL Conf. Computer Science Logic (CSL 2025)*, volume 326 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 44:1–44:21, Dagstuhl, Germany, February 2025. Schloss Dagstuhl – Leibniz-Zentrum für Informatik. doi:10.4230/LIPIcs.CSL.2025.44.
186. Shawn Ong, Stephanie Ma, and Dexter Kozen. Probabilistic Kleene algebra with angelic nondeterminism. In *Proc. 46th ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2025)*, Seoul, June 2025. ACM.
187. Jules Jacobs, Nate Foster, Tobias Kappé, Dexter Kozen, Lily Saada, Alexandra Silva, and Jana Wagemaker. StacKAT: Infinite state network verification. In *Proc. 46th ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2025)*, Seoul, June 2025. ACM.

## Unpublished Papers

188. Dexter Kozen. Finitely presented algebras and the polynomial time hierarchy. Technical Report TR77-303, Computer Science Department, Cornell University, April 1977.
189. Dexter Kozen. On the representation of dynamic algebras. Technical Report RC7898, IBM Thomas J. Watson Research Center, October 1979.



- 190. Dexter Kozen. On the representation of dynamic algebras II. Technical Report RC8290, IBM Thomas J. Watson Research Center, May 1980.
- 191. Dexter Kozen and Michael Machtey. On relative diagonals. Technical Report RC8184, IBM Thomas J. Watson Research Center, April 1980.
- 192. Dexter Kozen. On the expressiveness of  $\mu$ . Manuscript, 1981.
- 193. Dexter Kozen. Logics of programs. Lecture notes, Aarhus University, Denmark, 1981.
- 194. Dexter Kozen. On teaching left-handed children to write. Technical Report TR87-844, Computer Science Department, Cornell University, June 1987.
- 195. Allan Cheng and Dexter Kozen. Some notes on rational spaces. Technical Report TR96-1576, Computer Science Department, Cornell University, March 1996.
- 196. Ernie Cohen, Dexter Kozen, and Frederick Smith. The complexity of Kleene algebra with tests. Technical Report TR96-1598, Computer Science Department, Cornell University, July 1996.
- 197. Kenneth Andrews, Chris Heegard, and Dexter Kozen. A theory of interleavers. Technical Report TR97-1634, Computer Science Department, Cornell University, June 1997.
- 198. Dexter Kozen. Efficient code certification. Technical Report TR98-1661, Computer Science Department, Cornell University, January 1998.
- 199. Dexter Kozen. Typed Kleene algebra. Technical Report TR98-1669, Computer Science Department, Cornell University, March 1998.
- 200. Allegra Angus and Dexter Kozen. Kleene algebra with tests and program schematology. Technical Report TR2001-1844, Computer Science Department, Cornell University, July 2001.
- 201. Adam Barth and Dexter Kozen. Equational verification of cache blocking in LU decomposition using Kleene algebra with tests. Technical Report TR2002-1865, Computer Science Department, Cornell University, June 2002.
- 202. Chris Hardin and Dexter Kozen. On the elimination of hypotheses in Kleene algebra with tests. Technical Report TR2002-1879, Computer Science Department, Cornell University, October 2002.
- 203. Dexter Kozen. Halting and equivalence of schemes over recursive theories. Technical Report TR2002-1881, Computer Science Department, Cornell University, October 2002.
- 204. Chris Hardin and Dexter Kozen. On the complexity of the Horn theory of REL. Technical Report TR2003-1896, Computer Science Department, Cornell University, May 2003.

- 205. Dexter Kozen. Kleene algebras with tests and the static analysis of programs. Technical Report TR2003-1915, Computer Science Department, Cornell University, November 2003.
- 206. Dexter Kozen. Natural transformations as rewrite rules and monad composition. Technical Report TR2004-1942, Computer Science Department, Cornell University, July 2004.
- 207. Dexter Kozen. Toward the automation of category theory. Technical Report TR2004-1964, Computer Science Department, Cornell University, September 2004.
- 208. Dexter Kozen and Bernhard Möller. Separability in domain semirings. Technical Report 2004-16, Universität Augsburg, Institut für Informatik, December 2004.
- 209. Lucja Kot and Dexter Kozen. Second-order abstract interpretation via Kleene algebra. Technical Report TR2004-1971, Computer Science Department, Cornell University, December 2004.
- 210. Dexter Kozen and Alexa Sharp. On distance coloring. Technical Report TR2007-2084, Computing and Information Science, Cornell University, June 2007.
- 211. Carla Marceau and Dexter Kozen. AppMon: Application monitors for not-yet-trusted software. Technical Report TR07-0005, Odyssey Research Associates, June 2007.
- 212. Dexter Kozen and Marc Timme. Indefinite summation and the Kronecker delta. Technical Report <http://hdl.handle.net/1813/8352>, Computing and Information Science, Cornell University, October 2007.
- 213. Dexter Kozen. Lexicographic flow. Technical Report <http://hdl.handle.net/1813/13018>, Computing and Information Science, Cornell University, June 2009.
- 214. Dexter Kozen and Alexandra Silva. Practical coinduction. Technical Report <http://hdl.handle.net/1813/30510>, Computing and Information Science, Cornell University, November 2012.
- 215. Jean-Baptiste Jeannin, Dexter Kozen, and Alexandra Silva. Well-founded coalgebras, revisited. Technical Report <http://hdl.handle.net/1813/33330>, Computing and Information Science, Cornell University, May 2013.
- 216. Steffen Smolka, Praveen Kumar, Nate Foster, Dexter Kozen, and Alexandra Silva. Cantor meets Scott: Domain-theoretic foundations for probabilistic network programming. Technical Report <http://arxiv.org/abs/1607.05830>, Cornell University, 20 July 2016.
- 217. Steffen Smolka, Praveen Kumar, Nate Foster, Justin Hsu, David Kahn, Dexter Kozen, and Alexandra Silva. Probabilistic program equivalence for NetKAT. Technical Report <http://arxiv.org/abs/1707.02772v2>, Cornell University, March 2018.

- 218. Fredrik Dahlqvist and Dexter Kozen. Semantics of higher-order probabilistic programs with conditioning. Technical Report <http://arxiv.org/abs/1902.11189>, Cornell University, February 2019.
- 219. Steffen Smolka, Nate Foster, Justin Hsu, Tobias Kappé, Dexter Kozen, and Alexandra Silva. Guarded Kleene algebra with tests: Verification of uninterpreted programs in nearly linear time. Technical Report <http://arxiv.org/abs/1907.05920>, Cornell University, July 2019.
- 220. Nick Bezhanishvili, Marcello Bonsangue, Helle Hvid Hansen, Dexter Kozen, Clemens Kupke, Prakash Panangaden, and Alexandra Silva. Minimisation in logical form. Technical Report <http://arxiv.org/abs/2005.11551>, Cornell University, May 2020.
- 221. Anshuman Mohan, Yunhe Liu, Nate Foster, Tobias Kappé, and Dexter Kozen. Formal abstractions for packet scheduling. Technical Report <http://arxiv.org/abs/2211.11659>, Cornell University, November 2022.
- 222. Wojciech Różowski, Tobias Kappé, Dexter Kozen, Todd Schmid, and Alexandra Silva. Probabilistic guarded KAT modulo bisimilarity: Completeness and complexity. Technical Report <https://arxiv.org/abs/2305.01755>, Cornell University, May 2023.
- 223. Noam Zilberstein, Dexter Kozen, Alexandra Silva, and Joseph Tassarotti. A demonic outcome logic for randomized nondeterminism. Technical Report <https://arxiv.org/abs/2410.22540>, Cornell University, October 2024.
- 224. Shawn Ong, Stephanie Ma, and Dexter Kozen. Probability and angelic nondeterminism with multiset semantics. Technical Report <https://arxiv.org/abs/2412.06754>, Cornell University, December 2024.
- 225. Shawn Ong and Dexter Kozen. A decision procedure for probabilistic Kleene algebra with angelic nondeterminism. Technical Report <http://arxiv.org/abs/2507.10980>, Cornell University, July 2025.

### Books, Edited Proceedings

- 226. Dexter Kozen. *Complexity of finitely presented algebras*. PhD thesis, Computer Science Department, Cornell University, May 1977.
- 227. Dexter Kozen, editor. *Proc. Workshop on Logics of Programs 1981*, volume 131 of *Lecture Notes in Computer Science*. Springer-Verlag, 1982. 429 pages.
- 228. Edmund Clarke and Dexter Kozen, editors. *Proc. Workshop on Logics of Programs 1983*, volume 164 of *Lecture Notes in Computer Science*. Springer-Verlag, 1983. 528 pages.

- 229. Dexter Kozen. *The Design and Analysis of Algorithms*. Springer-Verlag, New York, 1991.
- 230. Dexter Kozen. *Automata and Computability*. Springer-Verlag, New York, 1997.
- 231. David Harel, Dexter Kozen, and Jerzy Tiuryn. *Dynamic Logic*. MIT Press, Cambridge, MA, 2000.
- 232. Dexter Kozen, editor. *Proc. 7th Int. Conf. Mathematics of Program Construction (MPC 2004)*, volume 3125 of *Lecture Notes in Computer Science*. Springer-Verlag, July 2004. 400 pages.
- 233. Dexter Kozen. *Theory of Computation*. Springer, New York, 2006.
- 234. Dexter Kozen, editor. *Science of Computer Programming*, volume 65:2. Elsevier, March 2007. Special issue dedicated to selected papers from the 7th Int. Conf. Mathematics of Program Construction (MPC'04).
- 235. Dexter Kozen and Ruy de Queiroz, editors. *Proc. 31st Int. Workshop on Logic, Language, Information, and Computation (WoLLIC 2025)*, volume 15942 of *Lecture Notes in Computer Science*. Springer-Verlag, July 14–17 2025. 369 pages.

## Patents

- 1. Matthew A. Stillerman, Dexter Kozen, and Thomas J. Merritt. Active verification of boot firmware. US Patent 7,467,417, issued December 16, 2008.
- 2. Matthew A. Stillerman, Dexter Kozen, and Thomas J. Merritt. Active verification of boot firmware. US Patent 7,716,470, issued May 11, 2010.