

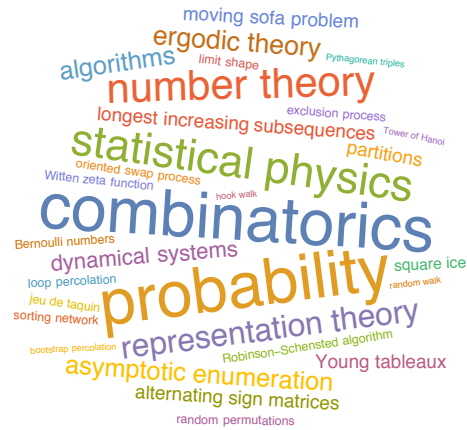
Dan Romik

Curriculum Vitae*

Professor
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Research interests



Employment: current position

- **2013–present.** Professor, Department of Mathematics, University of California, Davis.

Employment: previous positions

- **2014–2017.** Mathematics Department Chair, University of California, Davis
- **2011–2013.** Associate Professor at the Department of Mathematics, University of California, Davis
- **2009–2011.** Assistant Professor at the Department of Mathematics, University of California, Davis
- **2007–2009.** Senior Lecturer at the Einstein Institute of Mathematics, The Hebrew University of Jerusalem
- **2006–2007.** Member of the Fundamental and Industrial Mathematics Group at the Mathematical and Algorithmic Sciences Center, Bell Laboratories, New Jersey
- **2005–2006.** Postdoctoral researcher at the Department of Statistics, UC Berkeley
- **Spring 2005.** Postdoctoral Fellow at the Mathematical Sciences Research Institute (MSRI), Berkeley, for the Program on Probability, Algorithms and Statistical Physics

*Date last updated: January 30, 2024

- **2002–2004.** Postdoctoral Fellow at the Department of Mathematics, The Weizmann Institute of Science, Rehovot, Israel
- **2001–2002.** Chateaubriand Fellow (French government postdoctoral grant) at *Laboratoire de Probabilités et Modeles Aléatoires, Université Pierre et Marie Curie* (Paris 6), Paris

Education

- **2001.** Ph.D. in Mathematics at Tel-Aviv University
- **1997.** M.Sc. (*Summa Cum Laude*) in Pure Mathematics at Tel-Aviv University
- **1996.** B.Sc. (*Summa Cum Laude*) in Mathematics at Tel-Aviv University

Publications[†]

- **Books**

1. The Surprising Mathematics of Longest Increasing Subsequences. Cambridge University Press, 2015.
2. Topics in Complex Analysis. De Gruyter, 2023.
3. An Invitation to MadHat and Mathematical Typesetting. Association for Mathematical Research, 2023.

- **Papers.** 42 peer-reviewed publications (18 solely authored, 24 jointly authored) in professional journals and 4 publications in conference proceedings.

- **Selected journal publications:[‡]**

- D. Romik. On Viazovska’s modular form inequalities. *Proceedings of the National Academy of Sciences (USA)* 120 (2023), article e2304891120.
- S. Chatterjee, R. Peled, Y. Peres, D. Romik. Gravitational allocation to Poisson points. *Annals of Mathematics* 172 (2010), 617–671.

[†]A full publication list and downloadable publications are available at <https://www.math.ucdavis.edu/~romik/publications/>

[‡] Authors listed in alphabetical order

- Y. Kallus, D. Romik. Improved upper bounds in the moving sofa problem. *Advances in Mathematics* 340 (2018), 960–982.
- A. Bufetov, V. Gorin, D. Romik. Absorbing time asymptotics in the oriented swap process. *Annals of Applied Probability* 32 (2022), 753–763.
- O. Angel, A. E. Holroyd, D. Romik. The oriented swap process. *Annals of Probability* 37 (2009), 1970–1998.

- **Software**

I have developed and self-published the following mathematical software applications and packages:

- **MadHat** — mathematical typesetting software, 2021–2023.
Available at <https://madhat.design>
- Miscellaneous mathematical simulation desktop applications
Available at <https://www.math.ucdavis.edu/~romik/software/>
- Miscellaneous research software packages
Available at <https://www.math.ucdavis.edu/~romik/software/>

- **Patent.** Method and apparatus for filtering data packets. United States Patent 8,355,324. Y. Baryshnikov, D. Romik, E. H. Grosse, F. X. Zane.

Grants and awards

- **2018.** UC Davis Faculty Development Award
- **2018–2021.** National Science Foundation (NSF) grant number DMS-1800725
- **2010–2016.** National Science Foundation (NSF) Faculty Early Career Development (CAREER) grant number DMS-0955584.
- **2012–2013.** Simons Fellowship in Mathematics
- **2008–2009.** Israeli Science Foundation (ISF) Individual Research Grant number 1051/08

Graduate students and post-docs mentored

- Robert Scherer (Ph.D. 2021)
- Arvind Ayyer (Krener Assistant Professor post-doc, UC Davis, 2010–2013)
- Matan Karklinsky (M.Sc. 2009)

Professional service

- **Editorial**

- Editorial Board member, Arnold Mathematical Journal, 2024–present

- **501(c)(3) nonprofit governance**

- Member of Board of Governors, Pacific Journal of Mathematics, 2020–present
- Treasurer, Pacific Journal of Mathematics, 2024–present

- **University service**

- Mathematics Department Vice Chair of Academic Affairs, 2022–2023
- Mathematics Department Vice Chair of Academic Affairs, 2017–2018
- Mathematics Department Chair, 2014–2017
- Miscellaneous committee service, UC Davis, 2009–2023
- Miscellaneous committee service, Hebrew University, 2007–2009

- **Conference organization**

- Organizing Committee member, The 35th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2023)
- Program Committee co-chair, The 33rd International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2021)
- Co-organizer of the workshop “Asymptotic algebraic combinatorics” held at the Banff International Research Station, March 2019

- Organizer of the session “Random permutations and partitions” at the 12th International Vilnius Conference on Probability Theory and Mathematical Statistics and 2018 IMS Annual Meeting on Probability and Statistics, held in Vilnius, July 2018
- Program Committee member, The 28th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2016), held in Vancouver, July 2016
- Chair of the MSRI Committee of Academic Sponsors-Subcommittee on Sponsors Day (CAS-SSD), 2016-2017
- Co-organizer of the workshop “Random matrices, random growth processes and statistical physics” held at the Simons Center for Geometry and Physics, September 2015
- Co-organizer of the workshop “Random sorting processes” held at the Banff International Research Station, April 2006

- **Review of papers and grants**

- National Science Foundation grant review panelist, 2010, 2014, 2016, 2018
- Refereeing of grant applications for the National Science Foundation, European Research Council and Israeli Science Foundation
- Refereeing of papers for many professional journals

Teaching experience

- Taught a wide range of undergraduate and graduate classes at UC Davis, 2009–2023
- Taught at the Hebrew University, 2007–2009
- Taught at Tel Aviv University and the Weizmann Institute, 2003–2004
- Teaching Assistant, Tel Aviv University, 1997–2001

For more information, see <https://www.math.ucdavis.edu/~romik/teaching/>

Seminar, colloquium and conference talks since 2010

2024

1. Seminar talk, UC Santa Cruz, January 2024

2023

2. Invited conference talk, Institut Henri Poincaré, Paris, December 2023
3. Seminar talk, UC Davis, November 2023
4. Seminar talk, UC Berkeley, September 2023

2022

5. Seminar talk, Stanford University, November 2022

2021

6. Seminar talk, Mathematical Sciences Research Institute, Berkeley, November 2021

2020

7. Seminar talk, Kent State University (online), October 2020
8. Seminar talk, UC Davis (online), October 2020
9. Invited conference talk, Banff International Research Station (online), September 2020
10. Conference talk, The 32nd International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2020), online, July 2020
11. Invited conference talk, UCLA, February 2020
12. Seminar talk, UC Davis, February 2020

2019

13. Seminar talk, UC Berkeley, December 2019
14. Invited conference talk, ICERM, November 2019
15. Seminar talk, MIT, November 2019
16. Colloquium talk, UC Berkeley, September 2019
17. Seminar talk, Rutgers University, April 2019

18. Seminar talk, Okinawa Institute of Science and Technology, February 2019

2018

19. Seminar talk, UC Berkeley, October 2018

20. Invited conference talk, Randomness and Symmetry Workshop, University College Dublin, June 2018

21. Colloquium talk, UC San Diego, June 2018

22. Seminar talk, UC San Diego, June 2018

23. Invited conference talk, Columbia-Princeton Probability Day 2018, Columbia University, April 2018

24. Seminar talk, Rutgers University, April 2018

25. Conference talk, Mini-symposium on computational problems in low-dimensional topology, Okinawa Institute of Science and Technology, March 2018

2017

26. Colloquium talk, Queen Mary University London, November 2017

27. Invited conference talk, Erwin Schrödinger Institute of Mathematical Physics, Vienna, November 2017

28. Seminar talk, UC Davis, November 2017

29. Invited speaker, The 29th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2017), London, July 2017

30. Invited speaker, The 28th International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2017), Princeton, June 2017

31. Invited speaker, Workshop on Asymptotic Representation Theory, Institut Henri Poincaré, Paris, February 2017

2016

32. Seminar talk, Harvard University, December 2016
33. Seminar talk, UC Davis, October 2016
34. Seminar talk, University of Maryland, September 2016
35. Seminar talk, University of Toronto, September 2016
36. Summer school lecturer, The 3rd Algorithmic and Enumerative Combinatorics Summer School (AEC 2016), Research Institute for Symbolic Computation (RISC), Johannes Kepler University Linz, Hagenberg, Austria, August 2016
37. Conference talk, Sage Days 78, University of British Columbia, June 2016
38. Seminar talk, University of Washington, April 2016
39. Seminar talk, Stanford University, February 2016

2015

40. Seminar talk, Nagoya University, December 2015
41. Invited conference talk, MAA MathFest 2015, Washington, D.C., August 2015
42. Seminar talk, Galileo Galilei Institute, Florence, June 2015
43. Invited conference talk, Clay Mathematics Institute, May 2015
44. Seminar talk, University of Chicago, May 2015
45. Invited conference talk, ICERM, April 2015
46. Colloquium talk, Dartmouth College, April 2015
47. Seminar talk, UC Davis, March 2015

2014

48. Invited conference talk, MAA MathFest 2014, Portland, August 2014
49. Invited conference talk, Erwin Schrödinger Institute of Mathematical Physics, Vienna, June 2014

50. Seminar talk, University of Wisconsin-Madison, April 2014

51. Seminar talk, University of Wisconsin-Madison, April 2014

2013

52. Conference talk, UC Davis, October 2013

53. Conference talk, UC Davis, May 2013

54. Seminar talk, UC Davis, May 2013

55. Seminar talk, UC Berkeley, April 2013

56. Colloquium talk, Tel Aviv University, March 2013

57. Seminar talk, Tel Aviv University, March 2013

58. Seminar talk, Cambridge University, March 2013

59. Seminar talk, Oxford University, March 2013

60. Invited conference talk, Simons Center for Geometry and Physics, February 2013

61. Invited conference talk, Banff International Research Station, September 2013

2010–2012

62. Invited conference talk, 8th World Congress in Probability and Statistics, Istanbul, July 2012

63. Invited conference talk, MSRI, January 2012

64. Seminar talk, Stanford University, November 2011

65. Seminar talk, UC Davis, November 2011

66. Invited conference talk, Bay Area Discrete Math Day, San Francisco State University, April 2011

67. Seminar talk, UC Davis, April 2011

68. Invited conference talk, The 34th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing, Australian National University, Canberra, December 2010
69. Seminar talk, MSRI, December 2010
70. Seminar talk, Microsoft Research, October 2010
71. Seminar talk, University of Washington, October 2010
72. Seminar talk, UC Berkeley, April 2010
73. Seminar talk, Stanford University, April 2010
74. Invited conference talk, American Mathematical Society 2010 Spring Western Section Meeting, Albuquerque, April 2010
75. Colloquium talk, University of Southern California, April 2010
76. Seminar talk, UC Berkeley, March 2010
77. Invited conference talk, 28th Annual Western States Mathematical Physics Meeting, Caltech, February 2010