

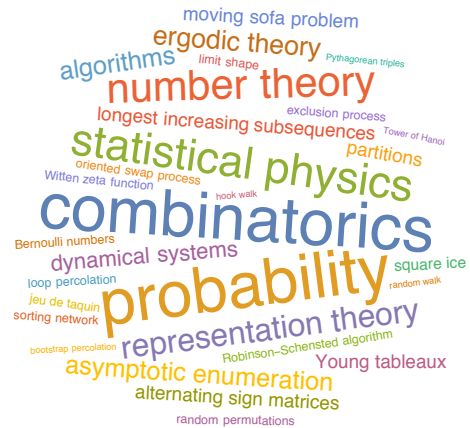
# Dan Romik

## Curriculum Vitae\*

Professor  
Department of Mathematics  
University of California, Davis  
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<https://www.math.ucdavis.edu/~romik>

## 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

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\*Date last updated: April 5, 2025

- **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<sup>†</sup>

- **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:<sup>‡</sup>**
  - 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.

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

<sup>‡</sup> 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, 2009–2025
- 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**

### **2025**

1. Seminar talk, McGill University, April 2025

### **2024**

2. Seminar talk, University of Wisconsin-Madison, September 2024
3. Invited conference talk, MIT, June 2024
4. Seminar talk, UC Davis, April 2024
5. Seminar talk, UC Santa Cruz, January 2024

### **2023**

6. Invited conference talk, Institut Henri Poincaré, Paris, December 2023
7. Seminar talk, UC Davis, November 2023
8. Seminar talk, UC Berkeley, September 2023

### **2022**

9. Seminar talk, Stanford University, November 2022

### **2021**

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

### **2020**

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

## **2019**

- 17. Seminar talk, UC Berkeley, December 2019
- 18. Invited conference talk, ICERM, November 2019
- 19. Seminar talk, MIT, November 2019
- 20. Colloquium talk, UC Berkeley, September 2019
- 21. Seminar talk, Rutgers University, April 2019
- 22. Seminar talk, Okinawa Institute of Science and Technology, February 2019

## **2018**

- 23. Seminar talk, UC Berkeley, October 2018
- 24. Invited conference talk, Randomness and Symmetry Workshop, University College Dublin, June 2018
- 25. Colloquium talk, UC San Diego, June 2018
- 26. Seminar talk, UC San Diego, June 2018
- 27. Invited conference talk, Columbia-Princeton Probability Day 2018, Columbia University, April 2018
- 28. Seminar talk, Rutgers University, April 2018
- 29. Conference talk, Mini-symposium on computational problems in low-dimensional topology, Okinawa Institute of Science and Technology, March 2018

## **2017**

- 30. Colloquium talk, Queen Mary University London, November 2017
- 31. Invited conference talk, Erwin Schrödinger Institute of Mathematical Physics, Vienna, November 2017
- 32. Seminar talk, UC Davis, November 2017
- 33. Invited speaker, The 29th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2017), London, July 2017

- 34. Invited speaker, The 28th International Meeting on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2017), Princeton, June 2017
- 35. Invited speaker, Workshop on Asymptotic Representation Theory, Institut Henri Poincaré, Paris, February 2017

## 2016

- 36. Seminar talk, Harvard University, December 2016
- 37. Seminar talk, UC Davis, October 2016
- 38. Seminar talk, University of Maryland, September 2016
- 39. Seminar talk, University of Toronto, September 2016
- 40. 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
- 41. Conference talk, Sage Days 78, University of British Columbia, June 2016
- 42. Seminar talk, University of Washington, April 2016
- 43. Seminar talk, Stanford University, February 2016

## 2015

- 44. Seminar talk, Nagoya University, December 2015
- 45. Invited conference talk, MAA MathFest 2015, Washington, D.C., August 2015
- 46. Seminar talk, Galileo Galilei Institute, Florence, June 2015
- 47. Invited conference talk, Clay Mathematics Institute, May 2015
- 48. Seminar talk, University of Chicago, May 2015
- 49. Invited conference talk, ICERM, April 2015
- 50. Colloquium talk, Dartmouth College, April 2015



- 51. Seminar talk, UC Davis, March 2015

## **2014**

- 52. Invited conference talk, MAA MathFest 2014, Portland, August 2014
- 53. Invited conference talk, Erwin Schrödinger Institute of Mathematical Physics, Vienna, June 2014
- 54. Seminar talk, University of Wisconsin-Madison, April 2014
- 55. Seminar talk, University of Wisconsin-Madison, April 2014

## **2013**

- 56. Conference talk, UC Davis, October 2013
- 57. Conference talk, UC Davis, May 2013
- 58. Seminar talk, UC Davis, May 2013
- 59. Seminar talk, UC Berkeley, April 2013
- 60. Colloquium talk, Tel Aviv University, March 2013
- 61. Seminar talk, Tel Aviv University, March 2013
- 62. Seminar talk, Cambridge University, March 2013
- 63. Seminar talk, Oxford University, March 2013
- 64. Invited conference talk, Simons Center for Geometry and Physics, February 2013
- 65. Invited conference talk, Banff International Research Station, September 2013

## **2010–2012**

- 66. Invited conference talk, 8th World Congress in Probability and Statistics, Istanbul, July 2012
- 67. Invited conference talk, MSRI, January 2012
- 68. Seminar talk, Stanford University, November 2011

- 69. Seminar talk, UC Davis, November 2011
- 70. Invited conference talk, Bay Area Discrete Math Day, San Francisco State University, April 2011
- 71. Seminar talk, UC Davis, April 2011
- 72. Invited conference talk, The 34th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing, Australian National University, Canberra, December 2010
- 73. Seminar talk, MSRI, December 2010
- 74. Seminar talk, Microsoft Research, October 2010
- 75. Seminar talk, University of Washington, October 2010
- 76. Seminar talk, UC Berkeley, April 2010
- 77. Seminar talk, Stanford University, April 2010
- 78. Invited conference talk, American Mathematical Society 2010 Spring Western Section Meeting, Albuquerque, April 2010
- 79. Colloquium talk, University of Southern California, April 2010
- 80. Seminar talk, UC Berkeley, March 2010
- 81. Invited conference talk, 28th Annual Western States Mathematical Physics Meeting, Caltech, February 2010