

# Melody Chan

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## CONTACT INFORMATION

Brown University  
Department of Mathematics  
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151 Thayer St  
Providence, RI 02912, USA

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## RESEARCH INTERESTS

Combinatorial algebraic geometry: algebraic curves and their moduli, graph theory, and tropical geometry

## POSITIONS HELD

Associate Professor, Brown University, 2020-  
Manning Assistant Professor at Brown University, 2019-2020  
Assistant professor at Brown University, 2015-2019  
NSF Postdoctoral Fellow and Lecturer at Harvard University, 2012-2015.

## EDUCATION

University of California, Berkeley, 2008-2012.  
Thesis: *Tropical curves and metric graphs*  
Advisor: Bernd Sturmfels  
Princeton University, 2006-2008, M.A.  
Advisor: Paul Seymour  
Cambridge University, 2005-2006, Certificate of Advanced Study in Mathematics, with Merit  
Yale University, 2001-2005, B.S. computer science and mathematics, summa cum laude.  
The Juilliard School, 2000-2001.  
Studies in violin with Itzhak Perlman, Dorothy DeLay

## PREPRINTS

1. *Piecewise-exponential functions and Ehrhart fans*, with E. Clader, C. Klivans, D. Ross. [arXiv:2503.22636](#)

## SUBMITTED ARTICLES

1. *Hopf structures in the cohomology of  $\mathcal{A}_g$ ,  $\mathrm{GL}_n(\mathbb{Z})$ , and  $\mathrm{SL}_n(\mathbb{Z})$* , with F. Brown, S. Galatius, and S. Payne. [arXiv:2405.11528](#)
2. *A Serre spectral sequence for the moduli space of tropical curves*, with C. Bibby, N. Gadish, and C. Yun. [arXiv:2307.01960](#)

## PUBLISHED/IN PRESS

1. *On the weight zero compactly supported cohomology of  $\mathcal{H}_{g,n}$* , with M. Brandt, S. Kannan, *Forum of Mathematics Sigma* Volume 12, 2024, e67
2. *On the top weight rational cohomology of  $\mathcal{A}_g$* , with M. Brandt, J. Bruce, M. Melo, G. Moreland, and C. Wolfe, *Geometry and Topology* 28 (2), 497–538.
3. *The  $S_n$ -equivariant top weight Euler characteristic of  $\mathcal{M}_{g,n}$* , with C. Faber, S. Galatius, and S. Payne, *American J. Mathematics* 145 (5), 1549–1585
4. *Homology representations of compactified configurations on graphs applied to  $\mathcal{M}_{2,n}$* , with C. Bibby, N. Gadish, and C. Yun. *Experimental Mathematics*, 2023, p. 1–13
5. *Relative Richardson varieties*, with N. Pflueger, *Math. Proc. Cambridge Phil. Soc.* 175 (1), 161–186
6. *Moduli spaces: classical and tropical*, Notices of the American Mathematical Society, November 2021.

7. *Topology of moduli spaces of tropical curves with marked points*, with S. Galatius and S. Payne, Facets of Algebraic Geometry volume in honor of William Fulton, 77–131. London Mathematical Society Lecture Note Series, Vol. 472, Cambridge University Press, 2022.
8. *Combinatorial relations on skew Schur and skew stable Grothendieck polynomials*, with N. Pflueger, Algebraic Combinatorics 4 (1) (2021), 175–188.
9. *Tropical curves, graph complexes, and the top weight cohomology of  $\mathcal{M}_g$* , with S. Galatius and S. Payne, J. Amer. Math. Soc. (2) (2021), 565–594.
10. *Euler characteristics of Brill-Noether varieties*, with N. Pflueger, Trans. Amer. Math. Soc. 374 (2021), 1513–1533.
11. *Topology of the tropical moduli spaces  $\mathcal{M}_{2,n}$* , Beiträge zur Algebra und Geometrie, (2021), 1–25.
12. *A moduli stack of tropical curves*, with R. Cavalieri, M. Ulirsch, and J. Wise, Forum of Mathematics, Sigma 8 (2020), e23.
13. *The Gieseker-Petri theorem and imposed ramification*, with B. Osserman and N. Pflueger, Bulletin of the London Mathematical Society 51 (2019), no. 6, 945–960.
14. *Genera of Brill-Noether curves and staircase paths in Young tableaux*, with A. López Martin, N. Pflueger, M. Teixidor i Bigas, Trans. Amer. Math. Soc. 370 (2018), 3405–3439.
15. *Lectures on tropical curves and their moduli spaces*, in Moduli of Curves, Springer, New York, 2017.
16. *Theta characteristics of tropical  $K_4$ -curves*, with P. Jiradilok, in *Combinatorial algebraic geometry* (eds G. G. Smith and B. Sturmfels), Fields Institute Communications, Springer, New York, vol 80 (2017).
17. *The expected jaggedness of order ideals*, with S. Haddadan, S. Hopkins, L. Moci, Forum of Mathematics Sigma, Vol. 5, e9 (2017), 27 pages.
18. *Sandpiles, spanning trees, and plane duality*, with D. Glass, M. Macauley, D. Perkinson, C. Werner, Q. Yang, SIAM J. Discrete Math 29-1 (2015), 461–471.
19. *Fano schemes of determinants and permanents*, with N. Ilten, Algebra and Number Theory 9-3 (2015), 629–679.
20. *Rotor-routing and spanning trees on planar graphs*, with T. Church and J. Grochow, Int. Math. Res. Not. 11 (2015), 3225–3244.
21. *Tropical Teichmüller and Siegel spaces*, with M. Melo and F. Viviani, Algebraic and combinatorial aspects of tropical geometry, 45–85, Contemporary Mathematics 589, AMS, Providence, RI, 2013.
22. *Tropical curves and metric graphs*, Ph.D. dissertation, U.C. Berkeley, 107 pages, 2012.
23. *Elliptic curves in honeycomb form*, with B. Sturmfels, Algebraic and combinatorial aspects of tropical geometry, 87–107, Contemporary Mathematics 589, AMS, Providence, RI, 2013.
24. *Tropical hyperelliptic curves*, Journal of Algebraic Combinatorics 37 (2013), no. 2, 331–359.
25. *Combinatorics of the tropical Torelli map*, Algebra and Number Theory 6 (2012), no. 6, 1133–1169.
26. *Three notions of tropical rank for symmetric matrices*, with D. Cartwright, Combinatorica 32 (2012), no. 1, 55–84.
27. *The  $4 \times 4$  minors of a  $5 \times n$  matrix are a tropical basis*, with A. N. Jensen and E. Rubei, Linear Algebra and its Applications 435 (2011), no. 7, 1598–1611.
28. *The distinguishing number of the augmented cube and hypercube powers*, Discrete Mathematics 308 (2008), no. 11, 2330–2336.
29. *Improved pebbling bounds*, with A. Godbole, Discrete Mathematics 308 (2008), no. 11, 2301–2306.
30. *The distinguishing number of the direct product and wreath product action*, Journal of Algebraic Combinatorics 24 (2006), no. 3, 331–345.
31. *The maximum distinguishing number of a group*, Electronic Journal of Combinatorics 13 (2006), no. 1, R70.

32. *Stably computable properties of network graphs*, with D. Angluin, J. Aspnes, M. J. Fischer, H. Jiang, R. Peralta, Distributed Computing and Sensor Systems: First IEEE International Conference, DCOSS 2005, Marina del Rey, CA, USA, /, 2005, Proceedings, Lecture Notes in Computer Science, volume 3560, Springer-Verlag, 2005, 63–74.

## AWARDS

2023 Simons Foundation Fellowship

2022 Fellow of the American Mathematical Society

NSF Award #2053221 FRG: Collaborative Research: Matroids, Graphs, and Algebraic Geometry, 2021-2024, in collaboration with June Huh, Nicholas Proudfoot, and Sam Payne, \$427,722.

NSF grant #1844768 CAREER: Algebraic curves and their moduli: degenerations and combinatorics, 2019-2024, \$399,928.

AWM-Microsoft Research Prize in Algebra and Number Theory, 2020. Awarded every other year  
Sloan Research Fellow, 2018.

Henry Merritt Wriston Fellowship, Brown University, 2017-2018, for excellence in teaching and research by junior faculty

NSF grant #1701924 “Algebraic and tropical moduli spaces and Brill-Noether theory,” 2017-2020, \$179,998.

NSA Young Investigators Grant, 2016-2017

## SELECTED AWARDS BEFORE 2015

NSF Postdoctoral Fellowship, 2012-2015

NDSEG and NSF Graduate Fellowships, 2007-2012

Association of Women in Mathematics (AWM) Alice T. Schafer Prize for Excellence in Mathematics by an Undergraduate Woman, 2005

Henry Fellowship for study at Cambridge University, 2005

Deforest Senior Prize, Benjamin F. Barge, George Beckwith, and Anthony J. Stanley Departmental Prizes, Yale Mathematics Department, 2002-2005

Hart Lyman Prize, awarded to one member of Yale’s junior class for “the best record of accomplishment intellectually and socially,” 2004

## TEACHING AND ADVISING

Brown University:

1. Math 540 Honors linear algebra (undergraduate), Fall 2015
2. Math 1040 Fundamental problems of geometry (undergraduate), Spring 2016
3. Math 1530 Abstract algebra (undergraduate), Spring 2017
4. Math 2050 Algebraic geometry (graduate), Fall 2017
5. Math 750 Introduction to higher mathematics (undergraduate), Fall 2017
6. Math 2520 Algebra (graduate), Spring 2019
7. Math 760 Introduction to higher mathematics (undergraduate), Spring 2019
8. Math 2050 Algebraic geometry (graduate), Fall 2019
9. Math 750 Introduction to higher mathematics (undergraduate), Fall 2019
10. Math 2520 Algebra (graduate), Spring 2020
11. Math 2520 Algebra (graduate), Spring 2021
12. Math 540 Honors linear algebra (undergraduate), Summer 2021
13. Math 2720T Graphs, matroids, and moduli spaces (graduate), Spring 2022
14. Math 2710O Topics in combinatorics (graduate), Fall 2022
15. Math 2520 Algebra (graduate), Spring 2024
16. Math 2510 Algebra (graduate), Fall 2024
17. Math 2520 Algebra (graduate), Spring 2025

Harvard University:

1. Math 233 Theory of schemes (graduate), Fall 2012
2. Math 285 Tropical geometry (graduate), Spring 2013
3. Math M Introduction to functions and calculus (undergraduate), Fall 2013

4. Math 137 Algebraic geometry (undergraduate), Spring 2014

Derek Box Certificate for Excellence in teaching at Harvard University, based on student evaluations, awarded three times

Advising and mentoring:

Postdoctoral:

Juliette Bruce, Postdoctoral Research Associate, 2022-2024  
Madeline Brandt, NSF Postdoctoral Fellow and Tamarkin Assistant Professor, 2020-2024  
Rohini Ramadas, NSF Postdoctoral Fellow and Tamarkin Assistant Professor, 2018-2022  
Kathlén Kohn, ICERM postdoc, 2018-2019  
Daoji Huang, ICERM postdoc, 2020

Graduate:

Claudia Yun, PhD 2022.  
Shiyue Li, PhD 2023.  
Siddarth Kannan, PhD 2023.  
Stefano Serpente, PhD 2023.  
Megan Chang-Lee, current.  
Yifan Guo, current.  
Ethan Partida, current.  
Raluca Vlad, current.

Undergraduate theses:

Ameer Muhialdeen, 2025, co-supervised with Ethan Partida.  
Nathan Zelesko, 2021, co-supervised with Chi-Ho Yuen.  
Claire Frechette, Brown University, 2016  
Christopher Eur, Harvard University, 2015

Undergraduate research supervision:

Jeremy Wang, 2022  
Pakawut Jiradilok, Harvard summer research, 2014

Thesis, exam committees:

PhD dissertation committee:

Dori Bejleri, Alicia Harper, Laura Walton, 2018;  
Shamil Asgarli, Thomas Silverman, 2019  
Terrence George, Giovanni Inchiostro, Xiang Raymond Li, 2020  
Alex McDonough, 2021  
Patrick Liscio, 2022  
Ming Hao Quek, 2023  
Veronica Arena, 2024

Topics exam/qualifying exam committee:

D. Aggarwal, V. Arena, T. Chambers, M. Echavarría, T. Ge, S. Griffith, C.-P. Huang,  
M. Khoshnevis, A. McDonough, S. Obinna, M. H. Quek, T. Silverman, T. Stone, M. Weinreich,

Undergraduate thesis committee:

Max Hlavacek, Jeremy Usatine

Other:

Teaching assistant, Moduli of Curves, IAS Program for Women and Mathematics, 2015  
Teaching assistant, Math Research Communities, Tropical and Nonarchimedean Geometry, 2013  
Teaching assistant, IMA Summer Program for Algebraic Geometry for Applications, 2012  
Teaching assistant, MSRI Summer Graduate Workshop on Cluster Algebras, 2011

CONFERENCE,  
WORKSHOP,  
SEMINAR  
CO-ORGANIZATION

1. SLMath semester program *New trends in tropical geometry*, Spring 2027
2. Spec  $\overline{\mathbb{Q}}(2\pi i)$  at Fields Institute, Toronto, 2024
3. ICERM Combinatorial Algebraic Geometry 3-week “reunion” program, 2023
4. AGNES Summer Schools, 2022 and 2023
5. AMS Special Session on Combinatorial Algebraic Geometry, Eastern Sectional Meeting, Fall 2022
6. Combinatorics and Nonlinear Algebra Day at Brown, 2022
7. ICERM Combinatorial Algebraic Geometry Semester, 2021

8. ICERM Introductory Workshop: Combinatorial Algebraic Geometry, 2021
9. ICERM Women in Algebraic Geometry Workshop, 2020
10. Algebraic and Tropical Meetings Online, 2020
11. Facets of Algebraic Geometry, *New Facets* for early career mathematicians, Michigan, 2019
12. AGNES, Brown University, 2018
13. Women@AGNES, Brown University, 2018
14. BIRS-Oaxaca workshop on algebraic, tropical, and nonarchimedean analytic geometry of moduli spaces, 2016
15. Women@AGNES, Yale University, 2016
16. AGNES, Brown University, 2015
17. BATMOBILE (Biannual Algebraic and Tropical Meetings Of Brown and Institutions Located nEarby), 2014-now
18. Harvard/MIT Algebraic Geometry Seminar, 2012-2014
19. AMS Special Session on tropical and nonarchimedean geometry, Joint Math Meetings, 2014
20. AMS Special Session on tropical geometry at the Joint Math Meetings, 2013
21. UC Berkeley Student Seminar in Discrete Mathematics, 2010-2011

SELECTED INVITED  
AND DISTINGUISHED  
LECTURES

1. Summer Research Institute in Algebraic Geometry plenary talk, 2025
2. Distinguished Women in Mathematics Lectures series, UT Austin, 2024
3. FPSAC 2023 plenary talk, 2023
4. AMS Eastern sectional meeting plenary, UMass Amherst, 2022
5. Spec  $\mathbb{Q}$ -bar plenary talk, Fields Institute, Toronto, 2022
6. Heilbronn Annual Conference, Bristol, 2019
7. Leonard C. Sulski Memorial Lecture, Holy Cross, 2019
8. Connecticut Valley Colloquium, Amherst, 2018
9. AWM Distinguished speaker series, Oregon, 2018
10. Mid-Atlantic Algebra, Geometry, and Combinatorics, Penn, 2017
11. Texas Algebraic Geometry Symposium, Rice University, 2017
12. Western Algebraic Geometry Symposium, UBC, 2017
13. Discrete Math Day of the Northeast, Smith, 2016
14. Algebra, Geometry and Combinatorics Day 11, DePaul, 2014
15. AGNES (Algebraic Geometry Northeastern Series), Brown, 2012

CONFERENCE TALKS

1. Harmonies in moduli spaces, on the occasion of Lucia Caporaso's birthday, 2025
2. Workshop on combinatorics of fundamental physics, IAS, 2024
3. Moduli spaces of curves, moduli spaces of graphs and graph complexes, ETH Zürich, 2024
4. Oberwolfach Tropical methods in Geometry, 2023
5. Simons Foundation Annual Meeting, New York, 2023
6. Combinatorial, Computational, and Applied Algebraic Geometry, University of Washington, 2022
7. Gustafsson Symposium, Institut Mittag-Leffler, Stockholm Sweden, 2022
8. Graph Complexes and Quantum Field Theory, Berlin/virtual, 2022
9. BIRS Cohomology of Arithmetic Groups: Duality, Stability, and Computations, 2021
10. ICERM workshop: Algebraic geometry and polyhedra, 2021
11. Moduli on Chestnut Hill workshop, Boston College, 2020
12. Northeastern Topology mini-conference, 2019
13. Graph complexes in algebraic geometry and topology, Manchester, 2019
14. Ideals, varieties, applications: celebrating the influence of David Cox, 2019
15. MSRI Workshop on recent progress on moduli theory, 2019
16. Ohio State workshop on Schubert calculus, 2018
17. Workshop on tropical varieties and amoebas in higher dimension, Stockholm, 2018
18. Simons Symposium on non-Archimedean and tropical geometry, 2017
19. Combinatorial moduli spaces workshop, Fields Institute, 2016
20. BIRS-CMO Workshop on sandpile groups, 2015
21. AIM Workshop on degenerations in algebraic geometry, 2015
22. AMS Summer Institute in Algebraic Geometry, 2015

23. UNC Chapel Hill Workshop on Moduli Spaces, Derived Geometry, and Geometric Representation Theory, 2014
24. Utah Tropical Geometry conference, 2014
25. BIRS Specialization of Linear Series for Algebraic and Tropical Curves, 2014
26. Joint Math Meetings AMS-AWM Special Session on Geometric Applications of Algebraic Combinatorics, 2014
27. SIAM Conference on Applied Algebraic Geometry, Special Session on Tropical Geometry and Combinatorics in Dynamical Systems, Colorado State, 2013
28. AMS Eastern sectional, Special Session on Moduli Spaces in Algebraic Geometry, Boston College, 2013
29. PhD Students Conference on Tropical Geometry, Göttingen, 2011
30. FPSAC 22 (Formal Power Series and Algebraic Combinatorics), 2010
31. SIAM Conference in Discrete Mathematics, Austin, 2010
32. Princeton-Oxford Combinatorics Workshop, 2008

#### LECTURE SERIES, MINICOURSES

1. Program for Women+ and Mathematics, IAS, 2025
2. 2nd Simons Math Summer Workshop: Moduli, Simons Center, 2024
3. EWM/EMS Summer school on tropical moduli, Institut Mittag Leffler, Stockholm/virtual, 2021
4. GAeL XXVI (Géométrie Algébrique en Liberté), 4 lectures, Strasbourg, 2018
5. MIT/Harvard Graduate Workshop in Algebraic Geometry, 1.5 lectures, 2018
6. CIMPA-CIMAT-ICTP School on Moduli of Curves, Guanajuato, 5 lectures, 2016

#### COLLOQUIA

1. UC Irvine, 2025
2. Brandeis–Harvard–MIT–Northeastern at Northeastern, 2025
3. UPenn, 2025
4. Utah, 2023
5. Princeton, 2023
6. Yale, 2023
7. Louisiana State, 2023
8. Georgia Tech, 2023
9. Harvard Center for Mathematical Sciences and Applications, 2022
10. McMaster University, 2021
11. Warwick University, 2021
12. Brandeis/Harvard/MIT/Northeastern, 2021
13. Johns Hopkins, 2019
14. University of Michigan, 2018
15. University of California at Davis, 2015
16. University of Illinois Urbana-Champaign, 2014
17. Johns Hopkins, 2014
18. University of Tennessee, 2014
19. University of California Berkeley, 2014
20. Reed College, 2014

#### SEMINARS

1. MIT topology seminar, 2025
2. Stanford algebraic geometry seminar, 2023
3. Minnesota topology seminar, 2023
4. Harvard Algebraic geometry seminar, 2023
5. MIT Combinatorics seminar, 2022
6. COGENT online seminar (online seminar in and around the cohomology of groups), 2022
7. Columbia Algebraic geometry seminar, 2021
8. UC Davis Algebraic geometry seminar, 2021
9. Algebra, Geometry, and Combinatorics Online, 2020
10. Brown Algebraic geometry seminar, 2019
11. Brown Combinatorics seminar, 2019
12. Duke Algebraic geometry seminar, 2019

13. Kentucky Algebra seminar, 2019
14. Stony Brook Algebraic geometry seminar, 2018
15. Amherst Valley geometry seminar, 2018
16. MIT Combinatorics seminar, 2018
17. Harvard/MIT Algebraic geometry seminar, 2018
18. Wisconsin Algebraic geometry seminar, 2017
19. Brandeis Combinatorics seminar, 2017
20. Brown Discrete math seminar, 2017
21. Northeastern Geometry, algebra, singularities and combinatorics seminar, 2017
22. Combinatorial Algebraic Geometry seminar, Fields Institute, 2016
23. Topology in a discrete setting seminar, ICERM semester on topology in motion, 2016
24. Northwestern Geometry and Physics seminar, 2016
25. Brown University Discrete math seminar, 2016
26. IAS Women and Mathematics seminar, 2015
27. University of Georgia Algebraic geometry seminar, 2015
28. Michigan State Algebra seminar, 2015
29. University of Michigan Combinatorics seminar, 2015
30. Harvard/MIT Algebraic geometry seminar, 2015
31. Boston University Geometry and Physics Seminar, 2014
32. Valley Geometry Seminar at University of Massachusetts Amherst, 2014
33. Brown University Geometry and Topology seminar, 2014
34. Colorado State FRAGMENT Seminar, 2014
35. Caltech Algebraic Geometry Seminar, 2014
36. Georgia Tech Algebra Seminar, 2014
37. University of Washington Algebra and Algebraic Geometry Seminar, 2014
38. MIT Combinatorics Seminar, 2014
39. Boston College Number theory and Algebraic Geometry Seminar, 2014
40. Brandeis Everytopic Seminar, 2013
41. Tropical aspects in Geometry and Topology, Max Planck Institute, Bonn, 2013
42. MIT Combinatorics Seminar, 2013
43. Rice University Algebraic Geometry Seminar, 2013
44. Tufts Algebra and Geometry Seminar, 2013
45. Yale Algebraic and Tropical Geometry Seminar, 2013
46. Stanford University Topology Seminar, 2012
47. UC San Diego Algebraic Geometry Seminar, 2011
48. Philadelphia Combinatorics and Algebraic Geometry Seminar, 2011
49. Johns Hopkins Algebraic Geometry and Number Theory Seminar, 2011
50. UC Irvine Algebra Seminar, 2011
51. UC Berkeley Combinatorics Seminar, 2011
52. Freie Universität Berlin Discrete Geometry Seminar, 2011
53. University of Chicago Geometry/Topology Seminar, 2011
54. UC Berkeley Representation Theory, Geometry and Combinatorics Seminar, 2011
55. UC Berkeley Algebraic Geometry Seminar, 2011
56. University of Warwick Algebraic Geometry Seminar, 2011
57. University of Rome III Geometry Seminar, 2011
58. University of Pisa Seminar, 2011
59. University of Florence Algebraic Geometry Seminar, 2011
60. Georgia Institute of Technology Tropical Geometry Seminar, 2010
61. MIT Combinatorics Seminar, 2010
62. UC Davis Algebra and Discrete Mathematics Seminar, 2010
63. UC Berkeley Seminar on Applications of Tropical Algebra, 2009
64. UC Berkeley Combinatorics Seminar, 2008
65. UC Davis Algebra and Discrete Mathematics Seminar, 2008

UNDERGRADUATE  
AND OUTREACH  
TALKS

1. UT Austin AWM Distinguished Women in Mathematics Lecture Series, 2024
2. Utah AWM Speaker series talk, 2023

3. Louisiana State AWM guest speaker, 2023
4. Advanced seminar at PROMYS: *Graphs, matroids, and polynomiality*, 2022
5. Colloquium for EDGE: Enhancing Diversity in Graduate Education, 2020
6. Brown Math DUG seminar, 2019
7. Kentucky undergraduate seminar, 2019
8. Yale Intersections seminar, 2019
9. Oregon undergraduate seminar, 2018
10. Wesleyan Summer Science Series, 2018
11. Harvard Women in Math and Statistics, 2018
12. Johns Hopkins CTY Science and technology series at Brown, 2018
13. Girls' angle, for middle and high school girls, 2018
14. Harvard Open neighborhood seminar, 2018
15. Brown University Women in Science and Engineering (faculty panelist), 2017
16. Yale SUMRY undergraduate colloquium, 2017
17. Brown University Women's Intellectual Network Research Symposium (faculty panelist), 2017
18. Brown University SUMS undergraduate symposium, 2016
19. Harvard Women in Mathematics and Statistics (faculty panelist), 2016
20. Boston University PROMYS for high school students, 2015
21. Smith College Center for Women in Mathematics, 2015

#### SERVICE

Departmental service: diversity committee 2015-2016, graduate admissions committee, 2016-2017, 2018-2019, 2021-2022, 2024-2025, undergraduate committee 2018-2019, search committees, 2019-2020, 2020-2021. Combinatorics seminar and algebraic geometry seminar organization.

AMS service: AMS Nominating Committee, 2022-2024, committee chair 2023

NSF panel member, 2018, 2020, 2021, 2022, 2024

Editor, Combinatorial Theory, 2025-.

Advisory board member, Cambridge Mathematical Textbooks series, 2021-.

Co-organizer, Horizons Seminar at Brown, featuring talks and workshops on topics that go beyond typical department seminars, including diversity, community, and career development for young mathematicians. 2016-2018.

Co-organizer, Mentoring Network for undergraduate/graduate women in math at Brown, 2016-2018

Reviewer (with multiplicity) for: Adv. Geometry, Adv. Math, Birkhauser, Algebra Number Theory, Collectanea, Combinatorial Theory, Discrete Appl. Math, Discrete Math. Theor. Comput. Sci., Duke, Electronic Journal of Combinatorics, Forum of Math. Sigma, Int. J. Comput. Math, J. Algebra, J. Algebraic Combin, JCTA, J. Graph Theory, J. Symbolic Computation, Linear and Multilinear algebra, Math. Annalen, Nagoya Math J., Proc. Amer. Math. Soc., SIAM J. Discrete Math., Springer GTM, Trans. Amer. Math. Soc.

Professional membership: AMS, AWM