

Botong Wang

Professor of Mathematics, University of Wisconsin–Madison

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Academic Appointments

Professor <i>Department of Mathematics, University of Wisconsin–Madison</i>	2025–present
Associate Professor <i>Department of Mathematics, University of Wisconsin–Madison</i>	2021–2025
Assistant Professor <i>Department of Mathematics, University of Wisconsin–Madison</i>	2017–2021
Visiting Assistant Professor <i>Department of Mathematics, University of Wisconsin–Madison</i>	2016–2017
Postdoctoral Researcher <i>Department of Mathematics, KU Leuven</i>	Fall 2015
Visiting Assistant Professor <i>Department of Mathematics, University of Notre Dame</i>	2012–2015

Education

Ph.D. in Mathematics <i>Purdue University; advisor: Donu Arapura</i>	2006–2012
B.A. in Mathematics <i>Peking University</i>	2002–2006

Honors and Fellowships

Von Neumann Fellowship <i>Institute for Advanced Study</i>	2024–2025
Simons Fellowship	2023–2024
Early Career Distinguished Alumni Award <i>Purdue University College of Science</i>	2022
Sloan Research Fellowship <i>Alfred P. Sloan Foundation</i>	2019–2023
International Mathematical Olympiad Gold Medal	2002

Research Grants

Simons Travel Support for Mathematicians	2026–2031
NSF Research Grant	2017–2020
Simons Travel Grant	2015–2017

Publications

Preprints and Forthcoming Work

1. **The parity module of a matroid** [arXiv:2610.20234]
With Tom Braden, June Huh, Jacob P. Matherne, and Nicholas Proudfoot.
2. **The topology of Kähler manifolds and 1-forms without zeros** [arXiv:2610.04314]
With Maurício Corrêa, János Kollár, and Stefan Schreieder.
3. **Invisible singularities in complex algebraic geometry** [arXiv:2608.10973]
With Mauricio Correa, János Kollár, and Stefan Schreieder.

4. **Matroid correspondence** [arXiv:2607.13783]
With Colin Crowley, Changxin Ding, Haoxi Hu, Arvind Kumar, Jonathan Montaña, Thai Thanh Nguyen, Anna Shapiro, Noah Solomon, and Juliet Whidden.
5. **Topology and Euler characteristics of tropical varieties** [arXiv:2606.10817]
With Scott Hiatt, Connor Simpson, and Chenxi Wu.
6. **Euclidean distance degree defect of singular projective varieties** [arXiv:2605.13726]
With Laurentiu Maxim and José Rodríguez.
7. **Vertex posets, monotone path polytopes, and Chow polynomials** [arXiv:2604.27515]
With Mateusz Michałek and Leonid Monin.
8. **Tree metrics and log-concavity for matroids** [arXiv:2601.02547]
With Federico Ardila-Mantilla, Sergio Crisancho, Graham Denham, Christopher Eur, and June Huh.
To appear in Proceedings of the London Mathematical Society.
9. **Spectral sequences, Massey products and homology of covering spaces** [arXiv:2511.11893]
With Yongqiang Liu and Laurentiu Maxim.
To appear in European Journal of Mathematics.
10. **Bounded ratios for Lorentzian matrices** [arXiv:2510.25030]
With Daoji Huang, June Huh, and Daniel Soskin.
11. **Linear operators preserving volume polynomials** [arXiv:2506.22415]
With Lukas Grund, June Huh, Mateusz Michałek, and Hendrik Süß.
12. **Realizations of homology classes and projection areas** [arXiv:2505.08881]
With Daoji Huang, June Huh, Mateusz Michałek, and Shouda Wang.
13. **Deformation openness of big fundamental groups and applications** [arXiv:2412.08636]
With Ya Deng and Chikako Mese.
14. **L^2 -vanishing theorem and a conjecture of Kollár** [arXiv:2409.11399]
With Ya Deng.
15. **Linear Chern–Hopf–Thurston conjecture** [arXiv:2405.12012]
With Ya Deng.
16. **Singular Hodge theory for combinatorial geometries** [arXiv:2010.06088]
With Tom Braden, June Huh, Jacob Matherne, and Nick Proudfoot.
To appear in Journal of the American Mathematical Society.
17. **Numerical computation of braid groups** [arXiv:1711.07947]
With José Rodríguez.

Published Articles and Chapters

1. **Maximal twisted Betti numbers of complex hyperplane arrangement complements**
With Yongqiang Liu and Laurentiu Maxim.
International Mathematics Research Notices, 2026, no. 6, Paper rnag050, 9 pp.
2. **The Bergman fan of a polymatroid**
With Colin Crowley, June Huh, Matt Larson, and Connor Simpson.
Transactions of the American Mathematical Society 379 (2026), no. 5, 3239–3256.
3. **Combinatorial flats and Schubert varieties of subspace arrangements**
With Colin Crowley and Connor Simpson.
Algebraic Combinatorics 8 (2025), no. 5, 1285–1312.
4. **A new generic vanishing theorem on homogeneous varieties and the positivity conjecture for triple intersections of Schubert cells**
With Jörg Schürmann and Connor Simpson.
Compositio Mathematica 161 (2025), no. 1, 1–12.
5. **Perverse sheaves on varieties with large fundamental groups**
With Donu Arapura.
Journal of Differential Geometry 129 (2025), no. 1, 1–15.
6. **Hodge-theoretic variants of the Hopf and Singer conjectures**
With Donu Arapura and Laurentiu Maxim.
In Geometry and Topology of Aspherical Manifolds, 93–103, Contemporary Mathematics 816.

7. **Brylinski–Radon transformation and generic projections**
With Yongqiang Liu and Laurentiu Maxim.
Proceedings of the American Mathematical Society 152 (2024), no. 12, 5279–5288.
8. **Applications of singularity theory in applied algebraic geometry and algebraic statistics**
With Laurentiu Maxim and José Rodríguez.
Handbook of Geometry and Topology of Singularities, vol. VII, 767–818.
9. **Cohomology of $\mathbb{Z}$ -local systems on complex hyperplane arrangement complements**
With Yongqiang Liu and Laurentiu Maxim.
International Mathematics Research Notices 2024, no. 15, 11092–11103.
10. **Linear optimization on varieties and Chern–Mather classes**
With Laurentiu Maxim, José Rodríguez, and Lei Wu.
Advances in Mathematics 437 (2024), Paper 109443.
11. **Logarithmic cotangent bundles, Chern–Mather classes, and the Huh–Sturmfels involution conjecture**
With Laurentiu Maxim, José Rodríguez, and Lei Wu.
Communications on Pure and Applied Mathematics 77 (2024), no. 2, 1486–1508.
12. **Self-covering, finiteness, and fibering over a circle**
With Lizhen Qin and Yang Su.
Transactions of the American Mathematical Society 377 (2024), 1883–1914.
13. **Mixed Hodge structures on Alexander modules**
With Eva Elduque, Christian Geske, Moisés Herradón Cueto, and Laurentiu Maxim.
Memoirs of the American Mathematical Society 296 (2024).
14. **Non-abelian Mellin transformations and applications**
With Yongqiang Liu and Laurentiu Maxim.
Forum of Mathematics, Sigma 10 (2022), Paper e100, 17 pp.
15. **Alexander modules, Mellin transformation and variations of mixed Hodge structures**
With Eva Elduque, Moisés Herradón Cueto, and Laurentiu Maxim.
Advances in Mathematics 411 (2022), Paper 108798, 27 pp.
16. **Hodge theory on Alexander invariants — a survey**
With Eva Elduque, Christian Geske, Moisés Herradón Cueto, and Laurentiu Maxim.
Topology and its Applications 313 (2022), Paper 107981, 16 pp.
17. **A semi-small decomposition of the Chow ring of a matroid**
With Tom Braden, June Huh, Jacob Matherne, and Nick Proudfoot.
Advances in Mathematics 409 (2022), Paper 108646, 49 pp.
18. **A Morse theoretic approach to non-isolated singularities and applications to optimization**
With Laurentiu Maxim and José Rodríguez.
Journal of Pure and Applied Algebra 226 (2022), no. 3, Paper 106865, 23 pp.
19. **Correlation bounds for fields and matroids**
With June Huh and Benjamin Schröter.
Journal of the European Mathematical Society 24 (2022), no. 4, 1335–1351.
20. **Aspherical manifolds, Mellin transformation and a question of Bobadilla–Kollár**
With Yongqiang Liu and Laurentiu Maxim.
Journal für die reine und angewandte Mathematik 781 (2021), 1–18.
21. **Euclidean distance degree of projective varieties**
With Laurentiu Maxim and José Rodríguez.
International Mathematics Research Notices 2021, no. 20, 15788–15802.
22. **Topology of subvarieties of complex semi-abelian varieties**
With Yongqiang Liu and Laurentiu Maxim.
International Mathematics Research Notices 2021, no. 14, 11169–11208.
23. **Perverse sheaves on semi-abelian varieties**
With Yongqiang Liu and Laurentiu Maxim.
Selecta Mathematica 27 (2021), no. 2, Paper 30, 40 pp.
24. **A numerical approach for computing Euler characteristics of affine varieties**
With Xiaxin Li and José Rodríguez.
In Mathematical Software — ICMS 2020, Lecture Notes in Computer Science 12097.

25. **Defect of Euclidean distance degree**
With Laurentiu Maxim and José Rodríguez.
Advances in Applied Mathematics 121 (2020), 102101.
26. **Lyubeznik numbers of irreducible projective varieties depend on the embedding**
Proceedings of the American Mathematical Society 148 (2020), 2091–2096.
27. **Perverse sheaves on semi-abelian varieties — a survey of properties and applications**
With Yongqiang Liu and Laurentiu Maxim.
European Journal of Mathematics 6 (2020), no. 3, 977–997.
28. **Euclidean distance degree of the multiview variety**
With Laurentiu Maxim and José Rodríguez.
SIAM Journal on Applied Algebra and Geometry 4 (2020), no. 1, 28–48.
29. **Computing Euler obstruction functions using maximum likelihood degrees**
With José Rodríguez.
International Mathematics Research Notices 2020, no. 20, 6699–6712.
30. **Absolute sets and the decomposition theorem**
With Nero Budur.
Annales scientifiques de l'École Normale Supérieure (4) 53 (2020), no. 2, 469–536. Correction: (4) 55 (2022), no. 5, 1473–1474.
31. **Cohomology jump loci of quasi-compact Kähler manifolds**
With Nero Budur.
Pure and Applied Mathematics Quarterly 16 (2020), no. 4, 981–999.
32. **On the length of perverse sheaves and D-modules**
With Nero Budur, Pietro Gatti, and Yongqiang Liu.
Bulletin Mathématique de la Société des Sciences Mathématiques de Roumanie 62(110) (2019), no. 4, 355–369.
33. **Generic vanishing for semi-abelian varieties and integral Alexander modules**
With Yongqiang Liu and Laurentiu Maxim.
Mathematische Zeitschrift 293 (2019), 629–645.
34. **Mellin transformation, propagation, and abelian duality spaces**
With Yongqiang Liu and Laurentiu Maxim.
Advances in Mathematics 335 (2018), 231–260.
35. **Algebraic surfaces with zero-dimensional cohomology support locus**
Taiwanese Journal of Mathematics 22 (2018), no. 3, 607–614.
36. **The monodromy theorem for compact Kähler manifolds and smooth quasi-projective varieties**
With Nero Budur and Yongqiang Liu.
Mathematische Annalen 371 (2018), no. 3–4, 1069–1086.
37. **A family of compact complex-symplectic Calabi–Yau manifolds that are non-Kähler**
With Lizhen Qin.
Geometry & Topology 22 (2018), no. 4, 2115–2144.
38. **Lefschetz classes on projective varieties**
With June Huh.
Proceedings of the American Mathematical Society 145 (2017), no. 11, 4629–4637.
39. **Enumeration of points, lines, planes, etc.**
With June Huh.
Acta Mathematica 218 (2017), 297–317.
40. **Cohomology support loci of local systems**
With Nero Budur, Yongqiang Liu, and Luis Saumell.
Michigan Mathematical Journal 66 (2017), no. 2, 295–307.
41. **Local systems on analytic germ complements**
With Nero Budur.
Advances in Mathematics 306 (2017), 905–928.
42. **Recent results on cohomology jump loci**
With Nero Budur.
In Hodge Theory and L^2 -analysis, ALM 39, 205–241.
43. **The maximum likelihood degree of mixtures of independence models**
With José Rodríguez.
SIAM Journal on Applied Algebra and Geometry 1 (2017), no. 1, 484–506.

44. **Maximum likelihood degree of Fermat hypersurfaces via Euler characteristics**
 Proceedings of the American Mathematical Society 144 (2016), no. 5, 3649–3655.
45. **Rank one local systems and forms of degree one**
 With Nero Budur and Youngho Yoon.
 International Mathematics Research Notices 2016, no. 13, 3849–3855.
46. **Torsion points on the cohomology jump loci of compact Kähler manifolds**
 Mathematical Research Letters 23 (2016), no. 2, 545–563.
47. **Bounding the maximum likelihood degree**
 With Nero Budur.
 Mathematical Research Letters 22 (2015), no. 6, 1613–1620.
48. **The signed Euler characteristic of very affine varieties**
 With Nero Budur.
 International Mathematics Research Notices 2015, 5710–5714.
49. **Cohomology jump loci of differential graded Lie algebras**
 With Nero Budur.
 Compositio Mathematica 151 (2015), no. 8, 1499–1528.
50. **Cohomology jump loci of quasi-projective varieties**
 With Nero Budur.
 Annales scientifiques de l'École Normale Supérieure 48 (2015), no. 1, 227–236.
51. **Homomorphisms between fundamental groups of Kähler manifolds**
 Proceedings of the American Mathematical Society 139 (2011), no. 5, 1599–1603.

Invited Talks

- Algebra and Geometry of Matroids, Casa Matemática Oaxaca, UNAM–Oaxaca, Oaxaca, Mexico, September–October 2026
- German Mathematical Association Annual Meeting, University of Konstanz, Konstanz, Germany, September 2026
- Colloquium, University of Iowa, February 2026
- AMS Special session on combinatorial algebraic geometry in JMM Joint Math Meetings, Washington, D.C., January 2026
- Algebra, Algebraic geometry and application seminar, Politecnico di Torino, online, December 2025
- Arizona-New Mexico Symposium on Commutative Algebra and Its Interactions: Geometric Combinatorics, New Mexico State University in Las Cruces, NM, December 2025
- Algebraic geometry seminar, Purdue University, November 2025
- Algebraic Geometry Seminar, Northwestern University, November 2025
- Algebraic geometry seminar, University of Chicago, October 2025
- Combinatorics & Geometry BLT seminar, Online, October 2025
- SIAM Conference on Applied Algebraic Geometry, minisymposium “Discriminants in the sciences”, University of Wisconsin-Madison, Madison, July 2025
- Colloquium, Rutgers University-Newark, Newark, March 2025
- Combinatorics of Enumerative Geometry workshop, IAS, Princeton, February 2025
- Combinatorics of Fundamental Physics, IAS, Princeton, November 2024
- Algebraic geometry seminar, Johns Hopkins University, November 2024
- Characteristic classes of singular spaces, Zhejiang University, Hangzhou, China, August 2024
- Summer school on moduli of local systems, Stockholm University, Stockholm, Sweden, May 2024
- Hyperplane arrangement 2023 conference, Rikkyo University, Japan, December 2023
- Summer course, Wuhan University, August 2023
- PKU Mathematics Forum, Peking University, August 2023
- Kentucky–Ohio Algebra Alliance (KOALA), OSU, Columbus, Ohio, May 2023
- Colloquium, University of Arizona, April 2023
- Recent Breakthroughs in Mathematics, Belgian Mathematical Society, Brussels, Belgium, March 2023
- Algebraic Aspects of Matroid Theory, BIRS, Banff, March 2023
- Algebraic geometry seminar, University of Michigan, February 2023

- Conference on Periods, Shafarevich Maps and Applications, IMSA, University of Miami, January 2023
- Optimization, Algebra, and Geometry Seminar (online), Carnegie Mellon University, November 2022
- Lectures at YMSC (online), Tsinghua University, November 2022
- Online seminar, Chinese University of Hong Kong, Hong Kong, October 2022
- Algebraic geometry seminar, KU Leuven, Leuven, Belgium, June 2022
- Summer school on nonabelian Hodge theory, St Jacut, France, June 2022
- Colloquium, Purdue University, April 2022
- AMS Sectional Meeting AMS Special Session on Optimization, Complexity, and Real Algebraic Geometry, virtual meeting, March 2022
- Geometry and topology seminar, University of Wisconsin-Madison, November 2021
- CA+ conference, University of Minnesota, October 2021
- Conference on Compactifications, configurations, and cohomology, Northeastern University, October 2021
- Workshop on D-modules, Group Actions, and Frobenius: Computing on Singularities, ICERM, online, August 2021
- Sokcho Algebraic Geometry conference, Sokcho, Korea, online, July 2021
- Algebraic geometry seminar, Stony Brook University, online, March 2021
- Geometry and Combinatorics Seminar, Western University, online, March 2021
- Seminar on Geometry and Arithmetic, UCSB, online, January 2021
- 10 lectures on matroid theory, Suzhou University, online, October–November 2020
- Combinatorics seminar, University of Wisconsin-Madison, February 2020
- Colloquium, University of Michigan, January 2020
- Special Session on Singularities and Characteristic Classes, AMS–JMM Joint Meeting, Denver, January 2020
- Algebraic topology seminar, Princeton University, November 2019
- Workshop on Topological and Analytical Methods in Singularity Theory, CIMAT, Guanajuato, Mexico, November 2019
- Leuven-PKU mini-conference, BICMR, Beijing, China, August 2019
- Workshop on Algebraic Geometry, Fudan University, Shanghai, China, July 2019
- Workshop on algebra, geometry and combinatorics, KIAS, Seoul, Korea, June 2019
- Tianyuan advanced seminar on Hodge theory, Center for Applied Mathematics of Tianjin University, Tianjin, China, May 2019
- Algebraic geometry conference, BCAM, Bilbao, Spain, May 2019
- Algebraic geometry seminar, KU Leuven, Leuven, Belgium, May 2019
- Geometry and topology seminar, University of Massachusetts Amherst, April 2019
- Algebraic geometry seminar, Johns Hopkins University, February 2019
- Algebra seminar, Georgia Tech, February 2019
- Workshop on D-modules and Hodge theory, UIC, November 2018
- WAGS (Western Algebraic Geometry Symposium), University of Oregon, October 2018
- Colloquium and Algebra Seminar, Central Michigan University, September 2018
- Algebraic geometry seminar, Suzhou University, Suzhou, China, August 2018
- Algebraic geometry seminar, BICMR, Beijing, China, August 2018
- Workshop on algebraic geometry, Morningside Center for Mathematics, Chinese Academy of Sciences, Beijing, China, June 2018
- Algebraic geometry seminar, East China Normal University, Shanghai, China, June 2018
- Topology and Geometry, a conference dedicated to the memory of Stefan Papadima. IMAR, Bucharest, Romania, May 2018
- Workshop on Geometry and Physics, III Sun Yat-sen University, May 2018
- Algebra seminar at University of Arkansas, March 2018
- Algebraic geometry seminar at Purdue University, February 2018
- Hodge Theory, Moduli and Representation Theory Conference at Stony Brook University, August 2017
- Algebraic geometry seminar at Shanghai center for mathematical sciences, China, August 2017
- One week summer course at Nanjing University, China, July 2017

- Singularity theory conference at East China Normal University, China, July 2017
- Workshop on Hyperplane Arrangements and Singularities, KIAS, Korea, June 2017
- Workshop on Algebraic Varieties With a Special Emphasis on Calabi-Yau Varieties and Mirror Symmetry at Fields Institute, Toronto, March 2017
- Special colloquium at University of Toronto, January 2017
- Algebraic geometry seminar and Colloquium at UCSD, January 2017
- Colloquium at University of Wisconsin-Madison, December 2016
- Colloquium at Washington University in St. Louis, November 2016
- Algebraic geometry seminar at OSU, November 2016
- Algebraic geometry seminar at University of Wisconsin-Madison, October 2016
- Conference "Young Researcher Symposium on Topology" at Nanjing University, China, August 2016
- Algebraic geometry seminar at KAIST, Korea, July 2016
- Algebraic geometry seminar at IBS-CGP, Pohang, Korea, July 2016
- Special session on "Algebraic geometry and singularities" in the Second Joint Conference of the Belgian, Royal Spanish and Luxemburg Mathematical Societies at University of La Rioja, Spain, June 2016
- Algebraic geometry seminar at University of Chicago, April 2016
- Algebraic geometry seminar at Princeton University, April 2016
- Algebraic geometry seminar at Purdue University, March 2016
- Conference "Singularities in the Midwest, III" at University of Wisconsin-Madison, March 2016
- AMS Sectional meeting "Special Session on Topology and Combinatorics of Arrangements (in honor of Mike Falk)" at Stony Brook University, March 2016
- AMS Sectional meeting "Special Session on Singularities in Algebra, Geometry and Topology", Loyola University Chicago, October 2015
- Workshop on "Geometry, Topology, and Combinatorics of Hyperplane Arrangements and Related Problems", University of Zaragoza, Spain, September 2015
- Topology and Geometry seminar, University of Wisconsin-Madison, March 2015
- Special colloquium, University of Wisconsin-Madison, January 2015
- Algebraic geometry seminar, University of Michigan, February 2014
- Algebraic geometry and commutative algebra seminar, University of Notre Dame, January 2014
- Algebra seminar, University of Nice, France, October 2013
- Number Theory and Algebraic Geometry seminar, KU Leuven, Belgium, October 2013
- Algebraic geometry seminar, UIC, September 2013
- Joint meeting of AMS and RMS, University of Alba Iulia, Romania, June 2013
- Algebraic geometry seminar, Purdue University, February 2013
- Algebraic geometry and commutative algebra seminar, University of Notre Dame, October 2012
- Algebra seminar, Wayne State University, September 2012
- Workshop on surface group representations, CRM, Barcelona, Spain, May 2012
- Algebraic geometry seminar, Purdue University, October 2011
- Midwest Algebraic Geometry Graduate Conference, University of Wisconsin-Madison, October 2010
- Algebraic geometry seminar, Purdue University, September 2009

Teaching

University of Wisconsin–Madison

MATH 222 <i>Calculus and Analytic Geometry 2</i>	Fall 2026
MATH/CS 240 <i>Introduction to Discrete Mathematics</i>	Spring 2026
MATH 467 <i>Introduction to Number Theory</i>	Fall 2025
MATH 222 <i>Calculus and Analytic Geometry 2</i>	Spring 2023
MATH 853 <i>Topics in Combinatorial Hodge Theory</i>	Fall 2022
MATH 234 <i>Calculus and Analytic Geometry 3</i>	Spring 2022
MATH 222 <i>Calculus and Analytic Geometry 2</i>	Fall 2021
MATH 221 <i>Calculus and Analytic Geometry 1</i>	Spring 2021
MATH 551 <i>Elementary Topology</i>	Fall 2020
MATH 751 <i>Algebraic Topology I</i>	Fall 2020
MATH 752 <i>Algebraic Topology II</i>	Spring 2020
MATH 752 <i>Algebraic Topology II</i>	Spring 2019
MATH 551 <i>Elementary Topology</i>	Fall 2018
MATH 551 <i>Elementary Topology</i>	Spring 2018
MATH 222 <i>Calculus and Analytic Geometry 2</i>	Fall 2017
MATH 222 <i>Calculus and Analytic Geometry 2</i>	Spring 2017
MATH 551 <i>Elementary Topology</i>	Spring 2017
MATH 551 <i>Elementary Topology</i>	Fall 2016
MATH 552 <i>Elementary Geometric and Algebraic Topology</i>	Spring 2016
MATH 752 <i>Introductory Algebraic Topology II</i>	Spring 2016

Graduate Mentoring

Connor Simpson; Colin Crowley; Yiyu Wang; Omega Tong	Ph.D. students
Putnam Club <i>Chair of the Putnam Club Committee</i>	Undergraduate

Conference and Workshop Organization

Nankai Workshop on Combinatorics and Geometry <i>Nankai University, Tianjin</i>	2026
Weihai Workshop on Hodge Theory and Singularities <i>Weihai, Shandong</i>	2026
Singularities in the Midwest X <i>University of Wisconsin–Madison</i>	2026
Combinatorial Aspects of Algebraic Geometry <i>Summer Research Institute in Algebraic Geometry, Colorado State University</i>	2025
Characteristic Classes of Singular Spaces <i>Zhejiang University</i>	2024
Suzhou Workshop on Matroid Theory <i>Soochow University</i>	2024
Matroids Day <i>University of Wisconsin–Madison</i>	2022
Conference on Hodge Theory in Honor of Donu Arapura’s 60th Birthday <i>University of Wisconsin–Madison; with Ajneet Dhillon, Kenji Matsuki, and Deepam Patel</i>	2019
Singularities in the Midwest VI <i>University of Wisconsin–Madison; with Laurentiu Maxim</i>	2019
Special Session on Singularities in Geometry, Topology and Algebra <i>AMS–CMS Joint Meeting, Shanghai; with Rong Du, Yongqiang Liu, and Laurentiu Maxim</i>	2018
Singularities in the Midwest V <i>University of Wisconsin–Madison; with Laurentiu Maxim</i>	2018
Singularities in the Midwest IV <i>University of Wisconsin–Madison; with Manuel Gonzalez Villa and Laurentiu Maxim</i>	2017

Professional Service

- Chair, Putnam Club Committee; member, Graduate Admissions Committee, University of Wisconsin–Madison.
- Referee for journals including *Annals of Mathematics*, *Journal of the European Mathematical Society*, *Transactions of the American Mathematical Society*, *Advances in Mathematics*, *Mathematische Annalen*, and *Algebra & Number Theory*.
- Coordinator, 54th International Mathematical Olympiad, Colombia, 2013.

Selected Research Visits

Institute for Advanced Study <i>Princeton, New Jersey</i>	2024–2025
Peking University <i>Beijing, China</i>	2023–2024
Institute for Advanced Study <i>Princeton, New Jersey</i>	2019
KU Leuven <i>Multiple research visits, Leuven, Belgium</i>	2013–2016