Matthew Hedden
CURRICULUM VITAE

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          Michigan State University   FAX: (517) 432-1562
          D325 WH   Email: *mhedden@math.msu.edu*
          East Lansing, MI 48824

EDUCATION:

Columbia University: Ph.D. in Mathematics, 2005. Advisor: Peter Ozsváth.

University of Notre Dame: B.A. Math and Physics, *summa cum laude*, 2001.

EMPLOYMENT:

2022   MSRI Program Member: Floer homotopy theory
2020   ICERM Semester Program Organizer: Braids at ICERM
2019–   Professor, Michigan State University.
2020   MSRI Program Member: Higher Categories and Categorification
2015–19   Associate Professor, Michigan State University.
2010   MSRI Program Member: Homology Theories of Knots and Links
2009–15   Assistant Professor, Michigan State University.
2008–9   Postdoctoral Associate, M.I.T.
2006–8   C.L.E. Moore Instructor, M.I.T.
2005–6   NSF Postdoctoral fellow, Princeton University.

FELLOWSHIPS AND GRANTS:

NSF RTG Grant DMS-2135960, 2022–, $1,936,762 PI
NSF Grant DMS-2104664, 2021–, $436,377 PI
NSF Grant DMS-1709016, 2017–2021, $411,607 PI
NSF Conference Grant DMS-1715902, 2017, $44,996 PI
NSF CAREER Grant DMS-1150872, 2012–2017. $433,969 PI.
NSF Conference Grant DMS-1239041, 2012, $45,000 Co-PI
Alfred P. Sloan Research Fellowship, 2011–2013.
NSF Grant DMS-0906258, 2009–2012. $145,746 PI.
NSF Grant DMS-0706979, 2007–2009. $78,448 PI.
NSF Grant DMS-0503335, 2005–2007. Postdoc Fellowship.

TEACHING AWARDS:

Michigan State University, College of Natural Science Teacher-Scholar Award
J. S. Frame Teaching Excellence Award, Michigan State University

RESEARCH INTERESTS:

Low-dimensional topology. Floer homology. Gauge theory. Symplectic and contact geometry. Cobordism. Categorification. Singularities.

PUBLICATIONS AND PREPRINTS:

1. On Knot Floer Homology and Cabling,
   Algebraic & Geometric Topology **5** (2005) 1197–1222.

2. Knot Floer homology of Whitehead doubles,

Geometry & Topology **11** (2007) 2277–2338.

3. The Ozsváth-Szabó and Rasmussen concordance invariants are not equal, (with P. Ording)
   American Journal of Mathematics **130(2)** (2008) 441–453.

4. Grid Diagrams for Lens Spaces and Combinatorial Knot Floer Homology, (with K. Baker and J.E. Grigsby)
   International Mathematics Research Notices **10** (2008).

5. An Ozsváth-Szabó Floer homology invariant of knots in a contact manifold,
   Advances in Mathematics **219** (2008) 89–117.

6. Some remarks on cabling, contact structures, and complex curves,
   Proc. Gökova Geom. Topol. Conf. 2007 (2008), 49–59.

7. On knot Floer homology and cabling II,
   International Mathematics Research Notices **12** (2009) 2248–2274.

8. Khovanov homology of the 2-cable detects the unknot,
   Mathematical Research Letters **16(6)** (2009) 991–994.

9. Notions of positivity and the Ozsváth-Szabó concordance invariant,
   Journal of Knot Theory and Its Ramifications **5** (2010) 617–629.

10. Manifolds with small Heegaard Floer ranks, (with Y. Ni)
    Geometry & Topology, **14** (2010) 1479–1501.

11. Does Khovanov homology detect the unknot, (with L. Watson)
    American Journal of Mathematics, **132(5)** (2010) 1479–1501.

12. On Floer homology and the Berge conjecture on knots admitting lens space surgeries,
    Transactions of the American Mathematical Society, **363(2)** (2011) 949–968.

13. Chern-Simons invariants, SO(3) instantons, and $\mathbb{Z}/2$ homology cobordism, (with P. Kirk)
    Chern-Simons Gauge Theory: 20 Years After, AMS/IP Studies in Advanced Mathematics, 50 (2011) 83–114.

14. Non-slice linear combinations of algebraic knots, (with P. Kirk and C. Livingston)
    Journal of the European Mathematical Society, **14(4)** (2012) 1181–1208.

15. Topologically slice knots with nontrivial Alexander polynomial, (with C. Livingston and D. Ruberman)
    Advances in Mathematics, **231(2)** (2012) 913–939.

16. Instantons, concordance, and Whitehead doubling, (with P. Kirk)
    Journal of Differential Geometry, **91(2)** (2012) 281–320.

17. Knot Concordance and homology cobordism, (with T. Cochran, B. Franklin, and P. Horn)
    Proc. of the American Mathematical Society **141** (2013), no. 6, 2193–2208.

18. On sutured Floer homology and the equivalence of Seifert surfaces,
    (with A. Juhasz and S. Sarkar)
    Algebraic & Geometric Topology **13** (2013), no. 1, 505–548

19. Dehn surgery, rational open books and knot Floer homology,
    (with O. Plamenevskaya)
    Algebraic & Geometric Topology. **13** (2013), no. 3, 1815–1856.

20. Khovanov module and the detection of unlinks, (with Y. Ni)
    Geometry & Topology **17** (2013) 3027–3076.

21. The pillowcase and perturbations of traceless representations of knot groups
    (with C. Herald and P. Kirk)
    Geometry & Topology **18** (2014), no. 1, 211–287.

22. Splicing knot complements and bordered Floer homology (with A. Levine)
    J. Reine Angew. Math. 720 (2016), 129–154

23. Topologically slice knots of smooth concordance order two (w. C. Livingston
    & Se-Goo Kim) *Journal of Differential Geometry*, 102 3 (2016), 353-393.

24. On the geography and botany of knot Floer homology (with L.Watson)
    Selecta Mathematica, 2017

25. Plane algebraic curves of arbitrary genus via Heegaard Floer homology
    (with M. Borodzik and C. Livingston)
    Comm. Math. Helv. 92 (2017) 215-256

26. The pillowcase and traceless representations of knot groups II: a Lagrangian-
    Floer theory in the pillowcase. (with C. Herald and P. Kirk)
    Journal of Symplectic Geometry 16 (2018) 3, 721-815.

27. Floer homology and Fractional Dehn Twists (with T. Mark)
    Advances in Mathematics 324 (2018), 1–39.

28. The Upsilon function of L-space knots is a Legendre transform
    (with M. Borodzik) *Mathematical Proceedings of the Cambridge
    Philosophical Society* 2017, 1-11.

29. On the functoriality of Khovanov-Floer theories
    (with J. Baldwin and A. Lobb)
    Advances in Mathematics 345 (2019), 1162–1205.

30. Irreducible 3-manifolds that cannot be obtained by 0-surgery on a knot
    (with M.H. Kim, K. Park, and T. Mark)
    Transactions of the American Mathematical Society, **372(11)** (2019) 7619–7638.

31. The Fukaya category of the pillowcase, traceless character varieties, and
    Khovanov Cohomology, (with M. Hogancamp, C. Herald, and P.Kirk)
    Transactions of the American Mathematical Society, **363(2)** (2020) 949–968.

32. Satellites of infinite rank in the smooth concordance group
    (with J. Pinzon-Caicedo)
    Inventiones Mathematicae, **225** (2021), no. 1, 131–157.

33. 4-dimensional aspects of tight contact 3-manifolds, (with K.Raoux)
    Proceedings of the National Academy of Sciences USA 118 (2021), no. 22

34. Knot Floer homology and relative adjunction inequalities
    (with K.Raoux) *Selecta* (N.S.) 29 (2023)

35. Cork, Involutions, and Heegaard Floer homology (with I. Dai and A. Mallick)
    to appear *Journal of the European Mathematical Society*

36. A surgery formula for knot Floer homology
    (with A. Levine) to appear *Quantum Topol.*

37. On naturality of the Ozsváth-Szabó contact invariant
    (with L.Tovstopyat-Nelip) to appear *Open Book Series*

38. Murasugi sum and extremal knot Floer homology
    (with Z. Cheng and S. Sarkar) to appear *Quantum Topol.*

39. Rank-expanding satellites, Whitehead doubles, and Heegaard Floer homology
    (with I. Dai, A. Mallick, and M. Stoffregen) *submitted*

INVITED LECTURES:

Conferences, Colloquia, and Lecture Series:
   Gauge Theory and Low Dimensional Topology, Miami 2023
   AMS Spring Eastern Sectional Meeting, 2023
   Interactions of Low-dimensional Topology and Quantum Field Theory,
    Les Diablerets, Switzerland, 2023
   Undergraduate Colloquium, Chico State University, 2022.
   AMS Invited Address, Purdue University Sectional Meeting, 2022.
   Interactions of gauge theory with contact and symplectic topology in dimensions
    3 and 4 BIRS Banff, Canada, 2022.
   Workshop on Link Homology and Concordance, Fields Institute, 2020
   Interactions of gauge theory with contact and symplectic topology in dimensions
    3 and 4 BIRS Banff, Canada, 2020.
   AMS Invited Address, Purdue University Sectional Meeting, 2020.
    (cancelled due to COVID)
   AMS Sectional Meeting, UW-Madison, 2019.
   Frontiers in Floer homology, Boston College, 2019.
   Cascade Topology Seminar, Portland State University, 2019
   Mathematics Colloquium, Louisiana State University, 2019
   Tulane Clifford Lectures, Tulane, 2019
   Knotted surfaces in 4-manifolds, UMass Amherst, 2018
   Topology, Oberwolfach, Germany, 2018
   Low-dimensional topology and its interactions with symplectic geometry
    Princeton, 2018
   Perspectives on Bordered Floer homology, Montreal, 2018.
   Conference on 4-manifolds and knot concordance, Max Plank 2016.
   Workshop on Flavours of Gauge Theory, Fields Insitute 2016.
   Perspectives in topology and geometry of 4-manifolds, Dubrovnik 2016.
   TOPSUM presentation, MSU 2016.

Topology in dimension 3.5 Rice, 2016.

Stein Manifolds, Contact Structures and Knots, Marseille 2015, (4 lecture
  series).

Undergraduate Colloquium, Grand Valley State University, 2016.

PIMS Symposium on Manifolds, Vancouver, 2015.

Workshop on Floer homology, Princeton, 2015.

Moab topology conference, Moab, UT, 2015.

Rebud Topology Conference, Stillwater, OK, 2015

Mathematics Colloquium, Grand Valley State University 2015

CMS Winter Meeting, Hamilton, Ontario, 2014.

Mathematics Colloquium, University of Arkansas, 2014.

Mathematics Colloquium, Indiana University, 2014.

Willam Rowan Hamilton Geometry and Topology Workshop, Trinity College
  Dublin, 2014.

Great Lakes Geometry Conference, Notre Dame, 2014.

Mathematics Colloquium, Rice Univeristy, 2014.

Topology, Geometry and Group Theory,Informed by Experiment, ICERM 2013

Mapping Class Groups and Categorification,
  BIRS Banff, Canada, 2013.

AMS Sectional Meeting, Boston College, 2013.

Topology in Low Dimensions: LMS course England 2013 (5 lectures)

Interactions of Geometry and Topology in dimensions 3 and 4,
  BIRS Banff, Canada, 2013.

Redbud Topology Conference, Arkansas, 2013.

SUMR Reunion Conference, Notre Dame, 2013.

The Tech Topology Conference, Georgia Tech, 2012.

AMS Sectional Meeting, Akron OH, 2012.

Conference on Holomorphic Curves and Low Dimensional Topology
  Stanford, 2012.

Invariants in Low-Dimensional Topology and Knot Theory,
  Oberwolfach, Germany, 2012.

Workshop on Dehn Surgery, University of Texas, Austin, 2012.

Geometric Structures on manifolds, BIRS Banff, Canada, 2012.

Tokyo Workshop on Low-dimensional Topology, Tokyo Institute of Technology,
  2012

Mathematics Colloquium, McMaster University, Canada, December 2011

45. AMS Sectional Meeting, Cornell, September 2011

Aarhus Gauge Theory Workshop, QGM Aarhus, Denmark, August 2011

Homological Invariants in Low-Dimensional Topology Workshop, Simons
    Center, June 2011.

SwissKnots, Lake Thun, Switzerland, June 2011.

AMS Sectional Meeting, Las Vegas, April 2011.

Graduate Student Topology Conference, (Faculty presenter)
    Michigan State University, April 2011.

Eastern Illinois Geometry Day, EIU, March 2011.

Interactions of Geometry and Topology in dimensions 3 and 4,
    BIRS Banff, Canada, March 2011.

Workshop on Knot Concordance, Wesleyan University, July 2010
    (lecture series).
Low-dimensional Topology and Categorification, Stony Brook, June 2010.
Knots, Contact Geometry and Floer Homology,
    University of Tokyo, May 2010.
Workshop on Knots, Contact Geometry and Floer homology, Tambara
    Institute, Japan, May 2010 (lecture series).
Cascades Topology Conference, BIRS Banff, Canada April 2010.
MSRI Workshop: Homology Theories of Knots and Links, January 2010
    (lecture series).
AMS Joint Meetings: Special Session, San Francisco, January 2010.
First National Forum of Young Toplogists, (Young Faculty representative)
    Tulane 2009.
Bloomington Geometry Workshop, Indiana University, April 2009.
Interactions of Geometry and Topology in dimensions 3 and 4,
    BIRS Banff, Canada, March 2009.
AMS Sectional Meeting, Durham NC, March 2009.
Mathematics Colloquium, IUPUI, February 2009.
The 5th East Asian School of Knots and Related Topics,
    Korea, January 2009.
Illinois Indiana Symplectic Geometry Conference, University of
    Notre Dame, November 2008.
AMS Sectional Meeting, Middletown, October 2008.
Holomorphic Curves: Algebraic Structures and Geometric Application,
    Stanford University, August 2008.
Mathematics Colloquium, University of California Riverside, January 2008.
Knot concordance: Fifty Years since Fox and Milnor, Brandeis University,
    June 2008.
Knots in Washington Conference, George Washington University,
    April 2008.
Mathematics Colloquium, Wesleyan University, April 2008.
AMS Sectional Meeting, Baton Rouge, March 2008.
Mathematics Colloquium, University of Nevada Reno, January 2008.
Mathematics Colloquium, Michigan State University, January 2008.
Gökova Geometry-Topology Conference, Turkey, June 2007.
Georgia Topology Conference, University of Georgia, May 2007.
Interactions of Geometry and Topology in Low Dimensions, BIRS
    Banff, Canada, March 2007.
Mathematics Colloquium, University of Miami, January 2007.
AMS Joint Meetings: Special Session on Floer homology, New Orleans,
    January 2007.
Mathematics Colloquium, University of California San Diego,
    January 2008.
Four-manifolds, Oberwolfach, August 2006.
Mathematics Colloquium, Tulane University, February 2008.
Park City Mathematics Institute Summer School, Park City, July 2006.
AMS Sectional Meeting, Durham NH, February 2006.

Mathematics Colloquium, University of Nevada Reno, February 2006.
NSF Focused Research Conference on J-holomorphic curves, Institute for
    Advanced Study, June 2005.
Georgia Topology Conference, University of Georgia, August 2004.
KOOK International Conference on Knot Theory, Osaka and Awaji
    Japan, July 2004.
*Clay Institute Workshop on Floer Homology, Gauge Theory and Low-
dimensional Topology*, Hungary, June 2004.

Seminars given at other Institutions:

2022-23: UC Berkeley, Knots in representation theory Online Seminar
2021-22: U. Michigan, Boston College, ICERM, Stony Brook, Harvard
2019–20: UC Berkeley, UCLA-USC-CalTech Topology Seminar, UC Davis,
    Stanford
2018-19: Columbia University, UCLA,
2017-18: University of Texas Austin, U. Illinois Chicago
2016-17: Montana State University, Hausdorff Institute, Max Plank Institute,
    MIT
2013-14: Berkeley, Indiana, Rice
2012-13: Purdue, Simons Center for Geometry and Physics, Columbia,
    Indiana, Harvard.
2011-12: Boston College, Northeastern, PATCH seminar (Temple, Bryn Mawr,
    Haverford, Penn), UCLA-USC-CalTech Topology Seminar,
    University of Virginia, McMaster, University of Georgia
2010–11: Rice, Caltech, MIT, Princeton, Indiana
2009–10: Columbia. MSRI
2008–9: UC Berkeley, Harvard, Brown, Northeastern, Columbia, Indiana,
2007–8: Columbia, Indiana, Purdue, Caltech, UMass Amherst,
    Georgia Tech, Rice, Duke.
2006–7: Harvard, MIT, Brandeis, Tufts, University of Virginia, Columbia,
    Lousiana State University, Southeastern Louisiana University,
    Université du Quebec á Montréal, Indiana, UT Austin.
2005–6: Princeton, Columbia, Notre Dame, Georgia Tech, Georgia,
    Michigan State, Indiana.
2004–5: Rutgers, Princeton, Columbia, Michigan State, UC Berkeley.

Seminars Organized:

2005-2006: Princeton University - Working seminar on Floer homology and low-
    dimensional topology

2007-2008: MIT- Low-dimensional Topology (co-organized with T. Mrowka and
    A. Putman)

Fall 2009: Michigan State - 3&4 Manifolds (co-organized with E. Kalfagianni
    and R. Fintushel)

Fall 2009: Michigan State - Working seminar on sutured manifolds and Floer

homology

Spring 2010: MSRI - Research Seminar, Homology Theories of Knots and Links (co-organized with P. Ozsváth, R. Lipshitz, and D. Thurston)

Spring 2010: MSRI - Working seminar on bordered Floer homology

2010–2011: Michigan State - Low-dimensional Topology (with E. Kalfagianni)

Summer 2011: Michigan State - Student learning seminar

2011–2013: Michigan State - Low-dimensional Topology (with E. Kalfagianni)

2012–present: Michigan State -Geometry and Topology (with colleagues)

2022: ICERM computational seminar for "Braids" semester program

2022: ICERM Colloquium series for "Braids" semester program

TEACHING:

Michigan State:

Fall 2023	Advanced Track ODE (MTH 347H)
Fall 2023	Topics in Topology (MTH 996): Methods in low-dimensional topology
Fall 2022	Calculus I (MTH 132)
Spring 2021	Graduate Topics in Topology (MTH 996): Communicating classics in geometry and topology
Fall 2020	Morse theory, h-cobordisms, and exotic spheres (MTH 996)
Fall 2019	Algebraic topology (MTH 960)
Fall 2019	Capstone in mathematics (MTH 496): Grid homology for knots and links
Spring 2019	Algebraic topology qualifying course (MTH 869)
Fall 2018	Graduate Topics in Topology (MTH 996): A second course in Floer theory
Fall 2018	Honors Algebra I (MTH 418H)
Fall 2017	Algebraic topology (MTH 960)
Spring 2017	Algebraic topology qualifying course (MTH 869)
Spring 2016	Graduate Topics in Topology (MTH 996): Topics in knot theory
Fall 2015	Advanced track real analysis (MTH 327H)
Fall 2015	Calculus I (MTH 132)
Spring 2015	Graduate Topics in Geometry (MTH 993): Communicating classics in geometry and topology
Fall 2013	Graduate Topics in Topology: Heegaard Floer homology
Fall 2012	Graduate Geometry & Topology III (MTH 869)
Fall 2012	Advanced Track Linear Algebra (MTH 317H)
Spring 2012	Graduate Geometry & Topology II (MTH 869)
Spring 2012	Advanced Track Linear Algebra (MTH 317H)
Spring 2011	Graduate Topics in Topology: Floer theory for 3-manifolds with boundary

Fall 2010	Graduate Topics in Topology: Floer theory for 3-manifolds with boundary
Fall 2009	Graduate Topics in Topology: Introduction to Floer homology

MIT:

Spring 2008	Differential Equations
Fall 2007	Graduate Topics in Geometry: Heegaard Floer homology and low-dimensional topology
Spring 2006	Graduate Course: Riemann Surfaces
Fall 2006	Single Variable Calculus, Recitation Instructor

Columbia:

Fall 2004	Calculus I
Spring 2004	Graduate Course: Modern Geometry II, Recitation Leader
Fall 2003	Graduate Course: Modern Geometry I, Recitation Leader
Summer 2003	Calculus II
Fall 2002	Calculus II, *Mathematica* Recitation Leader

Other:

2003-2004   NSF GK-12 Program - NYC Public School IS-89 This program teamed chemists, biologists, physicists, and mathematicians with NYC public middle teachers to bridge gap between graduate and K-12 education in the US. I designed innovative math and science curricula modules and consulted with teachers.

POSTDOCTORAL MENTEES:

David Duncan (2013–2016); now Assistant Professor (TT) at James Madison Uniersty
Andrew Donald (2013–2016); now Teaching Associate at University of Bristol
Yewon Joung (2015–2018); postdoc funding provided by the National Research Foundation of Korea
Katherine Raoux (2017–2021); now Assistant Professor (TT) at U. Arkansas
Lev Tovstopyat-Nelip (2019–2022); now
Peter Johnson (2022–present)

PH.D. ADVISEES:

David Krcatovich (2014): Ford Motor Company machine learning division, formerly G.C. Evans Instructor at Rice University,
Kyungbae Park (2014): Kangwon National University, Assistant Professor (TT)
Faramarz Vafaee (2014): Google: Software engineer, formerly Phillip Griffiths Assistant Research Professor at Duke University
Metin Ozsarfati (2018)
Wenzhao Chen (2019): Max Planck Research Member, PIMS Research Fellow UBC
Eylem Yildiz (2019): Duke postdoctoral fellow
Abhishek Mallick (2021): Max Planck Research Fellow, Hill Assistant

Professor at Rutgers
Dongsoo Lee (2021): Research Fellow Seoul National University
Jared Able (2022): Instructor at Indiana University
Chen Zhang (Expected 2024)
Tristan Wells-Filbert (Expected 2024)
Christopher StClair (Expected 2024)
Ivan So (Expected 2026)
Rithwik Vidyarthi (Expected 2027)

UNDERGRADUATE RESEARCH ADVISEES:

Minh Pham, Dong Liu, Evan Bell, Cara Bennet, Sarah Clarke, Jonah Mendel

PROFESSIONAL SERVICE:

Spring 2010: MSRI - Program liaison, Homology Theories of Knots and Links
Served on NSF panels.
Served as outsider reviewer for NSF proposals.
Reviewer for NSERC proposals.
Reviewer for Poland National Science Center proposals
Reviewer for Swiss National Science foundation proposals.
Reviewer for INdAM Marie Curie fellowships
Reviewer for Israel Science Foundation

Editorial:

Associate editor for *Algebraic & Geometric Topology*

Referee for:

Acta Mathematica
Acta Mathematica Hungarica
Advances in Mathematics
Algebraic & Geometric Topology
American Journal of Mathematics
American Mathematical Monthly
Annals of Mathematics
Compositio Mathematica
Commentarii Mathematici Helvetici
Documenta Mathematica
Duke Mathematics Journal
Forum of Math, Sigma
Fundamenta Mathematicae
Geometry & Topology
Geometriae Dedicata
Gökova conference proceedings
Homology, Homotopy, and Application
International Mathematics Research Notices

Journal of the American Mathematical Society
Journal für die Reine und Angewandte Mathematik
Journal of the Institute of Mathematics of Jussieu
Journal of Knot Theory and Its Ramifications
Journal of Differential Geometry
Journal of the London Mathematical Society
Journal of Quantum Topology
Journal of Symplectic Geometry
Journal of Topology
Notices of the American Mathematical Society
Pacific Journal of Mathematics
Proceedings of the American Mathematical Society
Proceedings of the London Mathematical Society
Proceedings Mathematical Sciences
Progress in Mathematics (Birkhauser series)
Mathematical Research Letters
Mathematische Annalen
Mathematische Nachrichten
Mathematische Zeitschrift
Michigan Mathematical Journal
Quarterly Journal of Mathematics
Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A.
Topology and its Applications
Transactions of the American Mathematical Society

Conference Organization:

Midwest Topology Seminar: Co-organizer, Michigan State University, October 2012 (conference of approximately 100).

Undergraduate summer school on knot theory: With J. Greene and M. Doig, designed and ran a week-long summer school, held at Notre Dame in May 2012.

Special session "Gauge theory, Floer homology, and symplectic geometry" at AMS sectional meeting, East Lansing, March 2015.

BIRS 5-day Workshop "Synchronizing smooth and topological 4-manifolds" February 2016.

Faculty mentor for "2017 Graduate Student Geometry Topology Conference". (conference of approximately 120)

Midwest Topology Seminar: Co-organizer, Michigan State University, May 2019

Simons Center For Geometry & Physics: Workshop on Floer homology & Low-dimensional Topology, Spring 2021 (Online)

Special session "Low-dimensional topology" at AMS sectional meeting, Purdue University, April 2020. (Cancelled)

Special session "Low-dimensional topology" at AMS

sectional meeting, Purdue University, April 2022.

2022 Semester-long thematic program at ICERM focused on braid groups and their interactions with topology, geometry, and computation

ICERM Conference "Braids in Low-dimensional Topology", April 2022

ICERM Hot Topics Workshop on Machine Learning and Pure math, April 2022

ICERM Reunion Workshop on Braids and their interaction, Summer 2023