Yifei Zhu

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POSITIONS

Southern University of Science and Technology, Shenzhen, Guangdong, China
  Tenure-track assistant professor,   February 2020 to present
  Visiting assistant professor,   December 2016 to January 2020

Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China
  Visiting scholar,   October 2016 to January 2017

Northwestern University, Evanston, Illinois, USA
  Visiting assistant professor,   September 2013 to August 2016
  Mentor: Paul Goerss

EDUCATION

University of Minnesota, Twin Cities, Minnesota, USA
  Ph.D. in Mathematics,   June 2013
  Advisor: Tyler Lawson

Peking University, Beijing, China
  B.S. in Mathematics,   July 2007

RESEARCH INTERESTS

Interactions of algebraic topology with algebraic geometry and number theory, especially moduli spaces from spectral algebraic geometry in the context of the Langlands program, as well as applications of topology and geometry to interdisciplinary research, including condensed-matter physics and materials science, time series analysis, human–computer interaction, and systems science.

PUBLICATIONS

Unconventional bulk-Fermi-arc links paired third-order exceptional points splitting from a defective triple point

> With Jing Hu, Ruo-Yang Zhang, Mudi Wang, Dongyang Wang, Shaojie Ma, Jian Huang, Linjun Wang, Xiaoping Ouyang, Hongwei Jia, C. T. Chan.
> Communications Physics **8** (2025), 90.
> DOI: 10.1038/s42005-025-02018-z

Topological classification for intersection singularities of exceptional surfaces in pseudo-Hermitian systems

> Second corresponding author, with Hongwei Jia, Ruo-Yang Zhang, Jing Hu, Yixin Xiao, Shuang Zhang, C. T. Chan.
> Communications Physics **6** (2023), 293.
> DOI: 10.1038/s42005-023-01417-4

Non-Hermitian swallowtail catastrophe revealing transitions among diverse topological singularities

> First corresponding author, with Jing Hu, Ruo-Yang Zhang, Yixiao Wang, Xiaoping Ouyang, Hongwei Jia, C. T. Chan.
> Nature Physics **19** (2023), 1098–1103.
> DOI: 10.1038/s41567-023-02048-w

Norm coherence for descent of level structures on formal deformations

> Journal of Pure and Applied Algebra **224** (2020), no. 10, 106382, 35 pp.
> DOI: 10.1016/j.jpaa.2020.106382

The Hecke algebra action and the Rezk logarithm on Morava E-theory of height 2

> Transactions of the American Mathematical Society **373** (2020), no. 5, 3733–3764.
> DOI: 10.1090/tran/8032

Semistable models for modular curves and power operations for Morava E-theories of height 2

> Advances in Mathematics **354** (2019), 106758, 29 pp.
> DOI: 10.1016/j.aim.2019.106758

Morava E-homology of Bousfield–Kuhn functors on odd-dimensional spheres

> Proceedings of the American Mathematical Society **146** (2018), no. 1, 449–458.
> DOI: 10.1090/proc/13727

The power operation structure on Morava E-theory of height 2 at the prime 3

RESEARCH GRANTS

2024–2025   Guangdong Provincial Key Laboratory of Interdisciplinary Research and Application for Data Science grant, *Topological time series analysis and deep learning*.

2024–2027   National Natural Science Foundation of China (NSFC) General Program grant 12371069, *Methods of algebraic topology to study moduli spaces: with applications to homotopy theory, condensed matter physics, and time series analysis*.

2023–2025   Guangdong Basic and Applied Basic Research Foundation (2023A1515030289) *Computations, structures, and applications in unstable chromatic homotopy theory*.

2018–2020   NSFC Young Scientists Fund grant 11701263, *Methods of algebraic geometry and number theory in algebraic topology*.

2018–2024   Finance Commission of Shenzhen Municipality start-up research grant.

AWARDS AND FELLOWSHIPS

2023   Excellent Instructor, the Fifteenth National College Students Mathematics Competition "Guangdong Division" Preliminary Competition and the Thirteenth Guangdong Province College Students Mathematics Competition.

2020   Second place, the Fourth Young Faculty Teaching Competition, SUSTech.

2017–2022   Overseas High-Caliber Personnel (Level C) fellowship, Shenzhen.

2007–2013   Teaching assistantship, University of Minnesota.

2007   Outstanding Graduating Student award, Peking University.

2005–2006   Outstanding Student award, School of Mathematical Sciences, Peking University.

CONFERENCE PRESENTATIONS

Rings, modules, and divisors in stable homotopy theory with applications

International Workshop on Algebraic Topology: Special International Conference in Honor

of Professor J. Peter May on the Occasion of His 85th Birthday, Southern University of Science and Technology, Shenzhen, March 2025.

Topological time series analysis and deep learning with applications

International Congress of Chinese Mathematicians Satellite Workshop: Applied Geometry and Topology for Data Sciences, Shanghai Institute for Mathematics and Interdisciplinary Sciences, Shanghai, February 2025.

Explicit examples of Higgs bundles in the contexts of quantum materials and geometric Langlands correspondence

2025 Winter Club of Mathematics and Physics Workshop, Southern University of Science and Technology, Shenzhen, January 2025.

Topology-enhanced machine learning for consonant recognition, with Z. Ding, P. Feng, Y. Qin, Q. Qu, S. Yi, Z. Yu, H. Zhang, poster session

Spires 2024: The 4th Annual Centre for Topological Data Analysis Conference, Mathematical Institute, University of Oxford, Oxford, August 2024.

Topological analysis and deep learning of human speech data

Symposium on Artificial Intelligence and Mathematics, Mathematical Science Research Center, Chongqing University of Technology, Chongqing, July 2024.

Explicit examples of Higgs bundles from physics and bulk–edge correspondence

Interdisciplinary Mathematical Workshop, Chongli, July 2024.

Higher-periodic homotopy types through Lubin–Tate towers

Conference on p-adic Geometry and Related Topics, Beijing International Center for Mathematical Research, Peking University, Beijing, June 2024.

Topology and geometry of non-Hermitian Möbius bands and their deformations

Capital Normal University 2024 Topology Symposium, Beijing, May 2024.

Topological combined machine learning for consonant recognition

BIMSA Workshop on Digraph Topology and GLMY Theory, Beijing Institute of Mathematical Sciences and Applications, Beijing, November 2023.

Topological time series analysis and deep learning with applications

Hangzhou Workshop on Topological Data Analysis, Hangzhou, October 2023.

Topological time series analysis with applications

The 21st Annual Meeting of China Society for Industrial and Applied Mathematics, Kunming, October 2023.

Moduli, moduli, moduli

International Workshop on Algebraic Topology, Beijing International Center for Mathematical Research, Peking University, Beijing, July 2023.

Topological invariants for stratified singular moduli spaces of non-Hermitian Hamiltonians with applications to condensed matter physics and photonics

The 9th International Congress of Chinese Mathematicians, jointly hosted by Yau Mathematical Sciences Center, Department of Mathematical Sciences of Tsinghua University, Academy of Mathematics and Systems Science of the Chinese Academy of Sciences, and Beijing Institute of Mathematical Sciences and Applications, Nanjing, August 2022, postponed.

Combinatorial cell decomposition and cohomology of compactified moduli for hyperbolic surfaces

2021 National Conference on Algebraic and Geometric Topology, Chinese Academy of Sciences, Beijing, August 2021, postponed.

Generalized modular forms in topology

Conference on Low Dimensional Topology, Shenzhen International Center for Mathematics, Shenzhen, November 2020.

Algebraic topology and arithmetic

Fudan-Guanghua International Forum for Young Scholars, Fudan University, Shanghai, December 2019.

Algebraic topology and arithmetic

2019 Young Mathematician Forum, Beijing International Center for Mathematical Research, Peking University, Beijing, December 2019.

Power operations in elliptic cohomology and related arithmetic topics

Special Session on Algebraic and Geometric Topology, AMS–CMS Joint International Meet-

ing, Fudan University, Shanghai, June 2018.

Toward calculating unstable higher-periodic homotopy types
> International Workshop on Algebraic Topology, Southern University of Science and Technology, Shenzhen, June 2018.

Symmetry encoded by norm maps
> International Workshop on Loop Spaces, Supersymmetry and Index Theory, Chern Institute of Mathematics, Nankai University, Tianjin, July 2017.

Algebraic geometry of ring spectra and multiplicative invariants for families of manifolds
> Workshop on Algebraic and Geometric Topology, Nankai University, Tianjin, June 2017.

Toward calculating unstable higher-periodic homotopy types
> AMS Special Session on Homotopy Theory, Sectional Meeting, Bloomington, April 2017, scheduled.

Session on chromatic power operations, with P. Nelson, P. VanKoughnett
> Operations in Highly Structured Homology Theories, Banff, May 2016.

Modular equations for Lubin–Tate formal groups at chromatic level 2
> AMS Session on Algebraic Geometry, Joint Meetings, Seattle, January 2016.

Power operation calculations in elliptic cohomology
> AMS Special Session on Homotopy Theory, Joint Meetings, Baltimore, January 2014.

CONFERENCE ORGANIZING

International Workshop on Algebraic Topology (IWoAT) 2025
> International conference, 5 days.
> Joint organizer with X. Gu, H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.
> Zhejiang University, July 7–11, 2025, scheduled.

IWoAT Summer School on Computations with the Adams Spectral Sequence and the Last Kervaire Invariant Problem
> International conference, 5 days.

Joint organizer with X. Gu, H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.

Westlake University, July 1–5, 2025, scheduled.

IWoAT Special International Conference in Honor of Professor J. Peter May on the Occasion of His 85th Birthday

International conference, 5 days, 86 participants.

Joint organizer (principal) with H. J. Kong, W. Lin, X.D. Shi, Z. Xu, F. Zou.

Southern University of Science and Technology, March 3–7, 2025.

IWoAT Symposium

International conference, 5 days, 12 participants.

Joint organizer (principal) with H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.

Southern University of Science and Technology, November 25–29, 2024.

Greater Bay Area Topology Conference: Topological data analysis and deep learning

International conference, 3 days, 37 participants.

Joint organizer (principal) with X. Du, F. Fan, P. Li, H. Liang, D. Liu, E. Wu, H. Zhao.

Southern University of Science and Technology, November 22–24, 2024.

The 16th Nan'ao Science Conference: Summit Forum on Frontiers of Applied Mathematics and Interdisciplinary Sciences

International conference, 4 days, 47 participants.

Moderator for Session on New Contexts for the Application of Core Mathematics.

Nan'ao, November 15–18, 2024.

Workshop on Computer-Assisted Research in Geometry and Topology

International conference, 5 days, 36 participants.

Joint organizer with F. Fang, S. Garoufalidis, G. Wang, Z. Xu.

Tianyuan Mathematics Research Center, Chaishitan, September 9–13, 2024.

IWoAT 2024

International conference, 5 days, 80 participants.

Joint organizer with H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.

Shanghai Center for Mathematical Sciences, Fudan University, July 2–6, 2024.

IWoAT Summer School on Motivic Stable Homotopy Theory

International conference, 5 days, 80 participants.

Joint organizer with H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.

Shanghai Center for Mathematical Sciences, Fudan University, June 23–27, 2024.

IWoAT Summer School on Operads, Spectra, and Multiplicative Structures

International conference, 6 days, 100 participants.

Joint organizer with H. J. Kong, G. Li, J. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, J. Wu, Z. Xu, F. Zou.

Beijing Institute of Mathematical Sciences and Applications, August 14–19, 2023.

IWoAT 2023

International conference, 5 days, 80 participants.

Joint organizer with H. J. Kong, G. Li, R. Liu, X.D. Shi, G. Wang, Z. Xu.

Beijing International Center for Mathematical Research, Peking University, July 24–28, 2023.

IWoAT Winter School on Motivic Stable Homotopy Theory and Synthetic Spectra

International conference, 5 days, 40 participants.

Joint organizer (principal) with H. J. Kong, G. Li, W. Lin, Y. Lu, X.D. Shi, G. Wang, Z. Xu, F. Zou.

Southern University of Science and Technology, December 19–23, 2023.

Mini-Workshop on Topology and Arithmetic

Domestic conference, 3 days, 60 participants.

Joint organizer with H. Gao, J. Guo, T. Liang.

Department of Mathematics and Shenzhen International Center for Mathematics, Southern University of Science and Technology, August 7–9, 2023.

Arithmetic and Topology

International conference, 2 days.

Joint organizer with H. Gao.

Department of Mathematics and Shenzhen International Center for Mathematics, Southern University of Science and Technology, December 16–17, 2022, online.

IWoAT Summer School on Chromatic Homotopy Theory and Higher Algebra

International conference, 12 days, 190 participants.

Joint organizer with H. J. Kong, Z. Lü, P. May, X.D. Shi, G. Wang, J. Wu, Z. Xu.

Shanghai Center for Mathematical Sciences & School of Mathematical Sciences, Fudan University, and Beijing Institute of Mathematical Sciences and Applications, August 15–26, 2022, online.

IWoAT Summer School on Equivariant Homotopy Theory and Junior Researcher Forum

International conference, 12 days, 90 participants.

Joint organizer with A. Beaudry, M. Behrens, D. Isaksen, H. J. Kong, Z. Lü, X.D. Shi, G. Wang, Z. Xu.

Shanghai Center for Mathematical Sciences, Fudan University, July 19–30, 2021, hybrid.

IWoAT 2020

International conference, 5 days.

Joint organizer with A. Beaudry, M. Behrens, D. Isaksen, H. J. Kong, R. Liu, X.D. Shi, G. Wang, Z. Xu.

Beijing International Center for Mathematical Research, Peking University, August 17–21, 2020, postponed.

IWoAT Summer School on Higher (Infinity-Categorical) Algebra and Its Applications

International conference, 5 days.

Joint organizer with A. Beaudry, M. Behrens, D. Isaksen, H. J. Kong, Z. Lü, X.D. Shi, G. Wang, Z. Xu.

Shanghai Center for Mathematical Sciences, Fudan University, August 10–14, 2020, postponed.

IWoAT 2019

International conference, 3 days, 140 participants.

Joint organizer with A. Beaudry, M. Behrens, D. Isaksen, H. J. Kong, Z. Lü, G. Wang, Z. Xu.

Shanghai Center for Mathematical Sciences, Fudan University, August 19–21, 2019.

IWoAT Summer School on Equivariant Homotopy Theory

International conference, 5 days, 140 participants.

Joint organizer with A. Beaudry, M. Behrens, D. Isaksen, H. J. Kong, Z. Lü, G. Wang, Z. Xu.

Shanghai Center for Mathematical Sciences, Fudan University, August 13–17, 2019.

Special Session on Algebraic and Geometric Topology, AMS–CMS Joint International Meeting

    International conference, 4 days, 50 participants.

    Joint organizer with M. Hill, Z. Lü, J. Ma.

    Fudan University, June 11–14, 2018.

IWoAT 2018

    International conference, 4 days, 63 participants.

    Joint organizer (principal) with A. Beaudry, M. Behrens, Z. Huan, H. Miller, N. Stapleton, G. Wang, Z. Xu.

    Southern University of Science and Technology, June 6–9, 2018.

Operations in Highly Structured Homology Theories

    International conference, 5 days, 40 participants.

    Organizer for Session on Chromatic Power Operations.

    Banff International Research Station, May 22–27, 2016.

SEMINAR TALKS

Topology-enhanced machine learning for consonant recognition

    Zhejiang University Computational and Applied Math Seminar, April 2025.

Spheres, spectral algebraic geometry, and Jacquet–Langlands correspondence

    Zhejiang University Math Activities Geometry and Topology Seminar, April 2025.

Quantum materials, Higgs bundles, and geometric Langlands correspondence

    Zhejiang University Math Activities Geometry and Topology Seminar, April 2025.

Topological time series analysis and deep learning with applications

    Beijing Normal University – Hong Kong Baptist University United International College, November 2023.

Topology of stratified singular moduli spaces for physical systems

    Westlake University Institute for Theoretical Sciences Math Colloquium, November 2022.

Topological time series analysis: with applications to biomedical and speech signal processing

    Hangzhou Normal University Chen Jiangong Math Colloquium, November 2022.

Spectral moduli problems and unstable chromatic homotopy theory
　　Beijing Normal University Topology Seminar, January 2022, online.

A topological classification for intersection singularities of exceptional surfaces in pseudo-Hermitian systems
　　Beijing Normal University Topology Seminar, January 2022, online.

Algebraic topology and arithmetic
　　Southern University of Science and Technology, December 2019.

Power operations in elliptic cohomology and semistable models for modular curves
　　Chinese Academy of Sciences Topology Seminar, November 2018.

Toward calculating unstable higher-periodic homotopy types
　　Electronic Computational Homotopy Theory Seminar, April 2018, online.

Power operations in elliptic cohomology and moduli of elliptic curves
　　Nankai University, November 2016.

Toward calculating unstable higher-periodic homotopy types
　　Chinese Academy of Sciences Topology Seminar, November 2016.

Power operation calculations in elliptic cohomology
　　Southern University of Science and Technology, October 2016.

Modular equations and Hecke operators for local elliptic spectra
　　University of Chicago Topology Seminar, January 2016.

Local moduli for elliptic spectra
　　University of Notre Dame Topology Seminar, January 2016.

Computing power operations for Morava E-theory of height 2 at a prime
　　University of Rochester Topology Seminar, October 2015.

The Hecke algebra action on Morava E-theory of height 2
>   University of Illinois Urbana-Champaign Topology Seminar, October 2014.

Finite subgroups of a formal group of height 2 over $\mathbb{F}_9$
>   University of Louisiana at Lafayette Topology Seminar, March 2014.

A formal group of height 2 over $\mathbb{F}_9$
>   Northwestern University Topology Seminar, October 2013.

Power operations in height-2 Morava E-theory and its $K(1)$*-localization*
>   University of Illinois Urbana-Champaign Topology Seminar, September 2013.

Power operations in an elliptic cohomology theory
>   University of Minnesota Topology Seminar, April 2013.

Computing power operations in Morava E-theory at height 2 for the prime 3
>   Wayne State University Topology Seminar, March 2013.

The structure of power operations in Morava E-theory at height 2 for the prime 3
>   University of Chicago Algebraic Topology Seminar, March 2013.

Computing power operations for Morava E-theory of height 2 at the prime 3
>   University of Virginia Topology Seminar, February 2013.

Selected Conferences and Workshops

Workshop on Arithmetic Topology
>   Pacific Institute for the Mathematical Sciences, University of British Columbia, Vancouver,
>   June 10–14, 2019.

Arbeitsgemeinschaft: Topological Cyclic Homology
>   Mathematisches Forschungsinstitut, Oberwolfach, April 1–7, 2018.

West Coast Algebraic Topology Summer School
>   On connections between algebraic topology and number theory.
>   University of Oregon, Eugene, August 8–12, 2016.

Operations in Highly Structured Homology Theories
> Banff International Research Station, May 22–27, 2016.

Mid-Atlantic Topology Conference—in honor of Nick Kuhn
> University of Virginia, Charlottesville, April 25–26, 2015.

West Coast Algebraic Topology Summer School
> University of Washington, Seattle, August 26–28, 2011.

New Contexts in Homotopy Theory—in honor of Peter May
> University of Chicago, Chicago, October 16–18, 2009.

SEMINAR ORGANIZING

2020–present   Southern University of Science and Technology (SUSTech),
Applied and Computational Topology Seminar

2017–present   SUSTech, Topology Seminar
Joint organizer with S. Garoufalidis.

2011–2012   University of Minnesota, Student Topology Seminar
Joint organizer with D. Bashkirov, R. Hank, E. Manlove.

REFEREEING

Chinese Annals of Mathematics. Series B

Frontiers of Mathematics

Geometry & Topology

International Mathematics Research Notices

Journal of the Australian Mathematical Society

Journal of Topology

Peking Mathematical Journal

Philosophical Transactions of the Royal Society A

Science China Mathematics

Scientific Reports

Transactions of the American Mathematical Society

MathSciNet (11 reviews currently published)

zbMATH Open (9 reviews currently published)

COMMITTEE WORK

2024–present	University library committee
2023–present	Departmental undergraduate education committee
2020–2024	Mathematics colloquium committee

TEACHING EXPERIENCE

Southern University of Science and Technology

- Courses taught:

MA323	Topology
MAT8021	Algebraic Topology (graduate level)
MAT7064	Topics in Geometry and Topology (graduate level)
MA423	Seminar in Geometry and Topology
MA327	Differential Geometry
MAT8024	Differentiable Manifolds (graduate level)
MA107A	Linear Algebra
MA101A	Mathematical Analysis I
MA102A	Mathematical Analysis II
MA301	Functions of Real Variables
MAT8010	Combinatorics (graduate level)
MA215	Probability Theory

- Postdoc mentoring: Pengcheng Li (2021–2023), Shiwo Deng (2021–2023, primary mentor: Fuquan Fang).

- Graduate advising: Jizhang Liu (2019–2021), Yifan Wu (2020–present), Xuecai Ma (2020–2024), Weiqiu Liang (2020–2021), Siheng Yi (2021–present), Yuqing Xing (2021 visited, primary advisor: Zhen Huan), Kecheng Shi (2021–2022 visited), Tongtong Liang (2021–2023), Zhiwang Yu (2021–present, primary advisor: Fuquan Fang), Yingxin Li (2022–2023 visited), Jiacheng Liang (2022–2024), Qingrui Qu (2022–present), Zhonglin Wu (2022–2024, co-advisor: Disheng Xu), Wenhui Yang (2023–present), Zeyang Ding (2023–present), Yunhao Sun (2023–present, co-advisor: Xiaowen Hu), Peng Huang (2023–present, co-advisor: Pengcheng Li), Hanwen Zhao (2023–2024 visited), Zhou Fang (2023–present), Haiyu Zhang (2024–present), Qianyi Zhang (2024–present), Chunshuang Yin (2024–present).

- Undergraduate advising: Jizhang Liu (2017–2019), Yaxi Zhu (2018–2020), Zican Gao (2018–2019), Tongtong Liang (2019–2021), Ruijun Lin (2019–2021), Wenbo Liao (2019–

2021), Jinghao Yu (2019–2021), Xiabing Ruan (2019–2021), Mingjie Wang (2020–2023), Linfeng Xu (2020–2022), Lingfeng Liu (2020–2022), Ruoyu Xu (2020–2022), Shuo Ling (2020–2023), Miaosen Jiao (2020–2023), Zijing Zhu (2020–2023), Yukai Wang (2020–2021), Hongxiang Zhao (2021–2023), Pingyao Feng (2021–2024), Rongming Yin (2022–2024), Zian Zhao (2022–2024), Ziyin Hu (2022–2024), Zeyang Ding (2022–2023), Zhichao Wang (2022–present), Jinghua Xi (2022–present), Yangqing Li (2022 visited), Jiacheng Liang (2022 visited), Yuanding Li (2023 visited), Yuhe Qin (2023–present), Xinyi Yu (2023–present), Wenhan Tan (2023–present), Yuzheng Ma (2023–2024), Zihan Chen (2023–present), Shen Li (2023–present), Haiyu Zhang (2023–2024), Chenlu Huang (2023–2024), Xiaolong Han (2024–present), Yixiang Zhou (2024–present), Yuyang Zhang (2024–present), Haoran Wang (2024–present), Qiyang Gao (2024–present), Yang Hu (2024–present), Zijie Wen (2024–present), Pengxu Zhang (2024–present).

- Fields Honors Class 2021, co-managing with B. Liu.

- Student recruiting, including design of computer-based standardized tests; undergraduate Linear Algebra standardized tests; graduate Geometry and Topology preliminary written exams.

- Tutorial fellow, Shuli College, currently advising 2 students of Class 2024, 3 students of Class 2023, 3 students of Class 2022, and 3 students of Class 2021. Led a panel discussion on math course study for freshmen of the College in Fall 2018 with three teaching-track faculty members.

Northwestern University

- Courses taught:

  Math 230   Differential Calculus of Multivariable Functions
  Math 234   Multiple Integration and Vector Calculus
  Math 240   Linear Algebra
  Math 300   Foundations of Higher Mathematics

- Regularly served as course coordinator for Math 230—the most-enrolled calculus course with the largest instructor group.

- Served as faculty mentor for Math 230's *Gateway Science Workshop* program for two consecutive terms, with recognition from the Provost.

- Involved in *Math Review Study Tables*—drop-in question and answer / group study sessions run prior to calculus exams in residence halls, initiated and co-sponsored by the Office of Residential Academic Initiatives and the Department of Mathematics.

- Involved in piloting the use of *Crowdmark*—a collaborative online grading and analytics platform, with recognition from the Mathematics Department Chair. Experienced with technology and administrative matters.

- Involved in transitioning common calculus course websites from *Blackboard* to *Canvas*.

University of Minnesota

- Teaching assistant for courses:

  Math 1151   Precalculus II
  Math 1271   Calculus I
  Math 2263   Multivariable Calculus
  Math 8602   Real Analysis

- Teaching assistant training, 2007. One of two (among 15) international math graduate students who were exempted from language classes.