

Michael Dorff

Professor
Department of Mathematics
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LEADERSHIP POSITIONS

- Executive Director, TPSE Math (Transforming Post-Secondary Education in Mathematics), part-time position, 2021-present.
Responsible for creating, seeking funding, and running the programs of TPSE Math which is a national organization working to improve collegiate level mathematics education for all students. TPSE programs include Leadership Institute, data science workshops, and developing resources for the mathematics community regarding diversity, equity, and inclusion.
- President, Mathematical Association of America (MAA), 2019-2021.
Duties included official representative of the MAA; chair of the Board of Directors; member of the MAA financial committee, the personnel committee, nomination committee, committee on committee and councils, science policy committee, and MAA Congress. With 20,000 members, the MAA is the largest national organization focused on undergraduate level mathematics
- Chair, Department of Mathematics, Brigham Young University, 2015-2019.
Responsible for the leading the department including the hiring of faculty and staff, annual faculty and staff reviews, annual budget, overseeing department teaching and research programs, and alumni relations. The department has 39 tenure-track faculty positions, 5 staff positions, and about 425 majors.
- A founding co-director of *Preparing Students for Business, Industry, and Government Careers* (PIC Math), 2013-present.
PIC Math is a national program funded by NSF for \$3.5 million to prepare math and stat undergraduates for careers in industry through a semester course whose purpose is for students work on teams to solve an actual problem from a business, industry, or government partner. Over 2000 undergraduate students (41% female and 23% from underrepresented ethnic groups) at 154 U.S. universities have participated in PIC Math.
- Founding director of the *Center for Undergraduate Research in Math* (CURM), 2007-2017.
CURM is a national program funded by NSF for \$2.6 million to train and support faculty in the mathematical sciences to successfully mentor undergraduates in research. CURM has had 110 faculty members (49% women, 29% from underrepresented ethnic groups, and 24% from HBCU/HSI) and 407 students (49% women, 20% from underrepresented ethnic groups, and 21% from HBCU/HSI) participate.

EMPLOYMENT/POSITIONS

- Professor, Associate Professor, and Assistant Professor, Department of Mathematics, Brigham Young University, 2000-present.
- Visiting Assistant Professor, Department of Mathematics, Purdue University, spring semester 2003.
- Assistant Professor, Department of Mathematics and Statistics, University of Missouri - Rolla, 1997-2000.

EDUCATION

- Ph.D., Mathematics, University of Kentucky, 1997.

- M.S., Mathematics, University of New Hampshire, 1992.
- B.A., Mathematics Education, Brigham Young University, 1986.

AWARDS

National Awards

- MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics, Mathematics Association of America (MAA), 2010. Each year 3 recipients are chosen nationally from among the 20,000 members of the MAA.
- AMS Fellow of the American Mathematical Society, 2012.
- CUR 2020 Fellows Award. CUR (Council on Undergraduate Research) has over 13,000 individual members and over 700 institutional members. Every other year CUR honors two people with a CUR Fellows Award for his work in mentoring undergraduate research. There have been 22 recipients nationally of a CUR Fellows Award.
- AMS 2015 award for “Mathematics Programs that Make a Difference” awarded by the American Mathematical Society to the Center for Undergraduate Research in Mathematics (CURM) with Michael Dorff as founder and director, 2015.
- Baylor University 2022 Semifinalist for the Cherry Award for Great Teaching. The Cherry Award program is designed to honor great teachers, to stimulate discussion in the academy about the value of teaching, and to encourage departments and institutions to value their own great teachers. First prize receives \$265, 000. I was nominated by BYU and was a Semifinalist out of the 114 nominations across all disciplines (https://www.baylor.edu/cherry_awards/index.php?id=977583).

University Awards

- BYU Karl G. Maeser Excellence in Teaching Award, 2010. This award is the most prestigious annual faculty teaching award at BYU.
- BYU Lawrence K. Egbert Teaching and Learning Faculty Fellowship for my work related to undergraduate research, 2012-2015.
- BYU Sponsored Research Recognition Award for outstanding achievements in scholarly activities funded by external sponsors, 2022.
- College Excellence in Teaching Award for faculty with more than 10 years of service at BYU, College of Physical and Mathematical Sciences, 2017.
- College Distinguished Citizenship Award, BYU College of Physical and Mathematical Sciences, 2007 and 2020.
- Department Distinguished Teaching Award established by a gift from Carolyn Savage Wright and the Kenneth C. Savage Foundation, BYU Department of Mathematics, 2010.
- Department Distinguished Teaching Award, BYU Department of Mathematics, 2014.
- Department Distinguished Citizenship Award, BYU College of Physical and Mathematical Sciences, 2008.
- UK Chancellor's Exceptional Teacher-Scholar Apprentice Award, University of Kentucky, 1997.
- College Teaching Award, University of Kentucky Association of Emeriti Faculty, 1997.
- Wimberly Royster Teaching Award, University of Kentucky Department of Mathematics, 1996.

Regional Awards

- MAA Section Teaching Award, Mathematics Association of America, Intermountain Section, 2008.
- MAA Section Meritorious Service Award, Mathematics Association of America, Intermountain Section, 2010. This service award is given once every five years.

GRANTS RECEIVED (23 GRANTS FOR \$8.6 MILLION)

Grants related to Education

- Co-PI, NSF INCLUDES DDLP: Creating Opportunities in the Mathematical Sciences through Equity and INclusion (COME-IN), a National Science Foundation (NSF) grant to pilot a program to improve DEI improvements in math/stats. \$600,000, currently being reviewed.
- Co-PI, Transforming Post-Secondary Education in Mathematics (TPSE Math), a Carnegie Corporation of New York grant for work in DEI and nonacademic careers in mathematics. \$400,000. 2023-2024.
- PI, *Faculty Interdisciplinary Data Science Workshop*, a National Science Foundation (NSF) Division of Undergraduate Research (DUE) conference grant to train faculty in data science and promote interdisciplinary work with undergraduate students. \$50,000. 2022-2023.
- Co-PI, *Preparing Students for Business, Industry, and Government Careers (PIC Math)*, a National Science Foundation (NSF) Division of Mathematical Sciences (DMS) grant to prepare students nationally for careers in business, industry, and government by taking a course in which students work in small groups on a research problem from industry. \$2 million. 2013-2017.
- Co-PI, *Preparing Students for Business, Industry, and Government Careers (PIC Math)*, a National Science Foundation (NSF) Division of Mathematical Sciences (DMS) grant to prepare students nationally for careers in business, industry, and government by taking a course in which students work in small groups on a research problem from industry. This is a renewal grant for \$1.5 million, 2017-2022.
- PI, *PIC Math: Preparation for Industrial Careers in the Mathematics Sciences*, a National Security Agency (NSA) grant to support undergraduate students to attend the PIC Math session at the MAA MathFest. \$55,200. 2019-2021.
- PI, *EMSW21-MCTP: Center for Undergraduate Research in Mathematics*, an NSF DMS grant to continue the national center for undergraduate research in mathematics to train and support faculty members throughout the U.S. in successfully mentoring undergraduate students in research. \$1.3 million. 2012-2017.
- PI, *EMSW21-MCTP: Center for Mentoring Undergraduate Research in Mathematics*, NSF DMS grant to establish national center for undergraduate research in mathematics to train and support faculty members throughout the U.S. in successfully mentoring undergraduate students in research. \$1.3 million. 2006-2011.
- PI, *Regional Undergraduate Mathematics Conferences*, an NSF DMS grant to fund regional undergraduate mathematics conferences. I was not involved with the original grant, but the PI passed away unexpectedly in 2013 and I was asked by the MAA who has the grant to be the new director and PI of the grant. \$600,000. 2012-2015 (original grant is 2009-2015).
- PI, *REU Site: Brigham Young University Undergraduate Research Experience in Mathematics*, an NSF DMS grant to establish an 8-week summer national research center in mathematics at BYU for undergraduate students. \$336,504. 2008-2012.
- PI, *Brigham Young University Undergraduate Research Experiences in Mathematics*, an NSF grant to establish an 8-week summer national research center in mathematics at BYU for undergraduate students. \$158,166. 2005-2008.
- PI, *Interdisciplinary Data Science Training Faculty Workshop*, an NSF DUE IUSE workshop grant to partially support a 4-day in-person faculty training workshop in interdisciplinary data science. \$49,343, 2012.
- PI, *Improving Elementary Math Instruction for All: A BYU-Public School Partnership Program*, Utah Office of Ed. grant. This is a collaborative project with BYU CITES, BYU College of Ed., BYU College of Physical and Math. Sci., and 5 local Utah school districts (Alpine, Jordan, Nebo, Provo, and Wasatch) to improve math instruction in K-6 public schools. \$513,000. 2006-2009.
- PI, *Toyota Applied Mathematics Institute (TAMI)*, a grant to do professional development for 6-12 grade mathematics teachers on how math is used in the real world, \$12,000. 2015.
- Co-PI, *High-Impact Teaching Fund: TA Training*, BYU College of Physical and Mathematical Sciences grant. \$9,240. 2011-2012.
- PI, *STEM Real World Applications of Mathematics*, an NSF Division of Undergraduate Education (DUE) grant to fund a “Careers in Mathematics” speaker series. \$30,000. 2010-2013.

- PI, *Metacalibrations Undergraduate Research Group*, a BYU “Environment for Mentoring” (MEG) grant to conduct research with undergraduate students at Brigham Young University. \$20,000. 2010-2012.
- Co-PI, *Geometry Undergraduate Research Group*, a BYU “Environment for Mentoring” (MEG) grant to conduct research with undergraduate students at Brigham Young University. \$18,000. 2006-2007.
- PI, *Undergraduate Research in Geometric Measure Theory*, a BYU MEG grant to conduct research with undergraduate students at Brigham Young University. \$14,150. 2003-2004.
- PI, *Tensor Grant* from the Math. Association of America/Tensor Foundation to support women participation in an undergraduate summer workshop. \$5,000. 2002.

Grants related to Mathematics Research

- PI, Monograph on Complex Analysis Research Topics, an NSF DUE collaborative grant to write a book on current research topics related to complex analysis. My part involves writing a chapter on planar harmonic mappings and a chapter on minimal surfaces. There are seven mathematicians involved in this project. Editor of the monograph. \$137,391. 2007-2010.
- PI, Conference on One and Several Complex Variables, NSF DMS. \$14,800. 2008-2009.
- PI, a Research Fulbright Scholar award supporting a 5-month visit to collaborate on research and teach at the Catholic University in Lublin and the Marie Curie Skłodowska University in Poland, \$22,000. 2005-2006.
- PI, COBASE (Collaboration in Basic Science and Engineering) Program, a National Research Council (NRC) grant to support two 4-week research trips (one for me from the U.S. to Poland and the other for a colleague from Poland to the U.S.) to initiate collaborative research in mathematics. \$8,400. 2003.
- PI, Harmonic Univalent Functions, Univ. of Missouri Research Board. \$11,857. 1998.

REFEREED PUBLICATIONS

Refereed Research Publications in Mathematics

- J. Brooks, M. Dorff, A. Hudson, E. Pitts, C. Whiffen, and A. Woodall. “Zeros of a family of complex-valued harmonic trinomials,” *Bull. Malays. Math. Sci. Soc.*, 45 (2022), no. 3, 1079-1091.
- B-Y Long, Q-H Wang, and M Dorff. “Close-to-harmonic extensions on the plane,” *Monatshefte fuer Mathematik*, 197 (2022), no. 4, 655-675.
- R. Garg, M. Dorff, and J. Jahangiri. “Directional convexity of convolutions of harmonic functions with certain dilatations,” *Comput. Methods in Funct. Theory* **74** (2021), online.
- M. Dorff, S. Hamidi, J., Jahangiri, and E. Yasar. “Convolutions of planar harmonic strip mappings,” *Complex Var. Elliptic Equ.* **66** (2021), no. 11. 1904-1921.
- M. Brilleslyper, J. Brooks, M. Dorff, R. Howell and L. Schaubroeck. “Zeros of a one-parameter family of harmonic trinomials,” *Proc. Amer. Math. Soc. Ser. B* **7** (2020), 82-90.
- B-Y Long and M Dorff. “Linear combinations of a class of harmonic univalent mappings.” *Filomat*, 32 (2018), no. 9, 3111-3121.
- R. Kumar, S. Gupta, S. Singh, M. Dorff. “An application of Cohn's rule to convolutions of univalent harmonic mappings,” *Rocky Mountain J. Math.*, 46 (2016), no. 2, 559-570.
- R. Kumar, M. Dorff, S. Gupta, and S. Singh. “Convolution properties of some harmonic mappings in the right-half plane,” *Bull. Malays. Math. Sci. Soc.*, **39** (2016), no. 1, 439-455.
- R. Kumar, S. Gupta, S. Singh, M. Dorff. “On harmonic convolutions involving a vertical strip mapping.” *Bull. Korean Math. Soc.* **53** (2015), no. 1, 105–123.
- Z. Boyd*, M. Dorff, M. Nowak, M. Romney, and M. Woloszkiwicz. “Univalence of convolutions of harmonic mappings,” *Appl. Math. Comput.* **234** (2014), 326-332.
- Z. Boyd* and M. Dorff. Harmonic univalent mappings and minimal graphs. *Current Topics in Pure and Computational Complex Analysis*, 21-46, Springer Trends in Mathematics, Springer Science-Business Media, New Delhi, 2014.

- M. Dorff and S. Muir, “A family of minimal surfaces and univalent planar harmonic mappings,” *Abstr. Appl. Anal.* **2014** (2014), Article ID 476061, 8 pages.
- V. Bucaj*, S. Cannon*, M. Dorff, J. Lawson*, and R. Viertel*. “Embeddedness for singly periodic Scherk surfaces with higher dihedral symmetry,” *Involve, a Journal of Mathematics* **6-4** (2013), 383-392.
- M. Dorff, R. Viertel*, and M. Wołoszkiewicz. “Convex combinations of minimal graphs,” *Int. J. Math. Math. Sci.* **2012** (2012), Article ID 724268, 9 pages.
- Z. Boyd*, M. Dorff, R. Messick*, M. Romney*, and R. Viertel*. Harmonic univalent mappings with singular inner function dilatation. *60 years of analytic functions in Lublin - in memory of our professors and friends Jan G. Krzyż, Zdzisław Lewandowski and Wojciech Szpiał*, 191–200, Innovatio Press Sci. Publ. House Univ. Econ. Innov. Lublin, Lublin, 2012.
- M. Dorff, M. Nowak, and M. Wołoszkiewicz. “Convolutions of harmonic convex mappings.” *Complex Var. Elliptic Equ.* **57** (2012), no. 5, 489-503.
- M. Dorff, M. Nowak, and W. Szpiał. “Typically real harmonic functions.” *Rocky Mountain J. Math.* **42** (2012), no. 2, 567-581.
- M. Dorff and J. Rolf. Soap Films, Differential Geometry, and Minimal Surfaces. *Explorations in Complex Analysis*, 85-159, Math. Assoc. of America, Inc., Washington, DC, 2012.
- M. Dorff and J. Rolf. Anamorphosis, Mapping Problems, and Harmonic Univalent Functions. *Explorations in Complex Analysis*, 197-269, Math. Assoc. of America, Inc., Washington, DC, 2012.
- M. Dorff, M. Nowak, and M. Wołoszkiewicz. “Harmonic mappings onto parallel slit domains.” *Ann. Polon. Math.* **101** (2011), 149-162.
- M. Dorff and J. Szynal. “Higher order Schwarzian derivatives for convex univalent functions.” *Tr. Petrozavodsk. Gos. Univ. Ser. Mat.* **15** (2009), 7-11.
- M. Dorff and J.-L. Marichal. “Some relations between volume and area of regions in \mathbb{R}^n .” *Rocky Mountain J. Math.* **37** (2007), no. 2, 551-572.
- M. Dorff and J. Szynal. “Linear invariance and integral operators of univalent functions.” *Demonstratio Math.* **38** (2005), no. 1, 47-57.
- M. Dorff and J. Szynal. “Harmonic shears of elliptic integrals.” *Rocky Mountain J. Math.* **35** (2005), no. 2, 485-499.
- M. Dorff and M. Nowak. “Landau's Theorem for planar harmonic mappings.” *Comput. Methods Funct. Theory* **4** (2004), no. 1, 151-158.
- M. Dorff, I. Naraniecka, and J. Szynal. “Doubly close-to-convex functions.” *J. Math. Anal. Appl.* **290** (2004), 55-62.
- M. Dorff, “Minimal graphs in \mathbb{R}^3 over convex domains.” *Proc. Amer. Math. Soc.* **132** (2004), 491-498.
- G. Jiang, T. Niederhauser, S. Davis, Y. Lua, M. Dorff, L. Howard, S. Magleby, and M. Linford. “Stability of Alkyl Monolayers on Chemomechanically Scribed Silicon to Air, Water, Hot Acid, and X-rays.” *Colloids and Surfaces A: Physicochemical and Engineering Aspects* **226**, (2003), no. 1-3, 9-16.
- M. Dorff, D. Halverson, and G. Lawlor. “Area-minimizing minimal graphs over nonconvex domains.” *Pacific J. Math.* **210**, (2003), no. 2, 229-259.
- M. Dorff. “Convolutions of planar harmonic convex mappings.” *Complex Var. Theory Appl.* **45** (2001), 263-271.
- T. Niederhauser, G. Jiang, Y. Lua, M. Dorff, D. Berges, and M. Linford. “A new process for preparing alkyl monolayers on silicon and patterning it by scribing in the presence of reactive species.” *Langmuir* **17**, (2001), 5889-5900.
- M. Dorff. “Harmonic mappings onto asymmetric vertical strips.” *Computational methods and function theory 1997 (Nicosia), Ser. Approx. Decompos. 11*. River Edge, NJ: World Sci. Publishing, 1999, 171-175.
- M. Dorff. “Some harmonic n -slit mappings.” *Proc. Amer. Math. Soc.* **126** (1998), 569-576.
- M. Dorff and T. Suffridge. “The inner mapping radius of harmonic mappings of the unit disk.” *Complex Var. Theory Appl.* **33** (1997), 97-103.

Refereed Publications in Education

- Michael Dorff and Scott Wolpert, “Introducing TPSE Math in the Context of Leadership and Equity, Diversity, and Inclusion.” *SIAM News*, Sept 2022.
- M. Dorff, “Undergraduate Research in Mathematics.” *The Cambridge Handbook on Undergraduate Research*, Harald A. Mieg (editor), Cambridge University Press, Cambridge, United Kingdom, 2022.
- Michael J. Dorff and Scott A. Wolpert. “A current look at mathematics graduate programs.” *Notices of the AMS*, vol. 29, no. 6, 2022, pp. 998-1003.
- Michael Dorff and Abbe Herzig, “COME-IN: Resources for Assessing and Improving EDI Efforts in Mathematics and Statistics Departments” *MAA Focus*, Jun/Jul 2022, pp. 22-24.
- Michael Dorff, May Mei, Daniel Reinholz, and Tom Wakefield, “Tipping the Scales of Mathematical Leadership: The TPSE Leadership Institute” *MAA Focus*, Feb/Mar 2022, pp. 14-16.
- M. Dorff and G. Fairweather, “The Mathematics Community in Myanmar, a Developing Country Plagued by Unrest.” *MAA Focus*, Jun/Jul 2021, pp. 16-18.
- J. Quinn and M. Dorff, “President’s Message.” *MAA Focus*, Feb/Mar 2021, pp. 40-41.
- M. Dorff, “I Have Failed.” *MAA Focus*, Dec 2020/Jan 2021, pp. 28-29.
- M. Dorff, “Mathematics in East Africa.” *MAA Focus*, Oct/Nov 2020, pp. 16-18.
- M. Dorff, K. Hoffman, and K. Leonard, “We Need You to Lead!” *MAA Focus*, Aug/Sep 2020, pp.34-35.
- M. Dorff, “Change, Uncertainty, and People.” *MAA Focus*, Jun/Jul 2020, pp. 28-29.
- M. Dorff, “My Living Proof Story.” *MAA Focus*, Apr/May 2020, pp. 34-35.
- M. Dorff, “Precision, Confidence, and Unintended Consequences.” *MAA Focus*, Feb/Mar 2020, pp. 40-41.
- M. Dorff, N. A. Neudauer, A. R. Pineda. “Mathematicians Without Borders.” *MAA Focus*, Dec 2019/Jan 2020, pp. 26-28.
- M. Dorff and S. Weekes. “A Student Research Course on Data Analytics Problems from Industry – PIC Math.” *Scholarship and Practice of Undergraduate Research (SPUR)*, Vol 2, No. 4, Summer 2019, pp. 37-42.
- M. Dorff, “People in the MAA.” *MAA Focus*, Oct/Nov 2019, pp. 28-29.
- M. Dorff, “What Math Majors Do After They Graduate.” *MAA Focus*, Aug/Sep 2019, pp. 26-27.
- M. Dorff, “Abandoning Silos and Strengthening Communities.” *MAA Focus*, Jun/Jul 2019, pp. 36-37.
- M. Dorff, “Mathematics is Beautiful.” *MAA Focus*, Apr/May 2019, pp. 34-35.
- M. Dorff, “Careers in Math Speaker Series.” *MAA Focus*, Dec 2018/Jan 2019, pp. 34-35.
- M. Dorff, A. Henrich and L. Pudwell. “Successfully mentoring undergraduates in research: a how to guide for mathematicians.” *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 27 (2017), no. 3, 320–336.
- M. Dorff, H. Berger, C. Christensen, M. Karls, S. Schlicker. Undergraduate Research in Mathematics. *2015 CUPM Curriculum Guide to majors in the Mathematical Sciences*, 93-98, Math. Assoc. of America, Inc., Washington, DC, 2015.
- M. Dorff. “Non-Academic Careers, Internships, and Undergraduate Research.” *Involve*, 7 (2014), no. 3, 303-313.
- J. Diamantopoulos, M. Dorff, and S. Richardson*. “How much undergraduate research in mathematics is being done?” *AMS Notices*, 61 (2014), no. 4, 384-386.
- M. Dorff. CURM: Promoting Undergraduate Research in Mathematics. *Topics from the 8th Annual UNCG Regional Mathematics and Statistics Conference*, 1-6, Springer Proceedings in Mathematics & Statistics, Springer Science-Business Media, New York, 2013.
- M. Dorff and D. Narayan. “Obtaining Funding and Support for Undergraduate Research.” *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 29 (2013),

no. 9, 776-784.

- M. Dorff. “CSPCC, URSIP, and CI (MAA’s Project leadership Conference).” *MAA Focus*, Aug/Sep 2013, pp. 18-19.
- M. Dorff, “An Unexpected AMS Fellows Invitation.” *MAA Focus*, Dec. 2012/Jan. 2013, p. 14.
- B. Bailey, M. Budden, M. Dorff, and U. Ghosh-Dastidar. “Undergraduate Research: How Do We Begin?” *MAA Focus*, Jan. 2009, pp. 14-16.
- M. Dorff. Center for Undergraduate Research in Mathematics (CURM) at Brigham Young University. *Proc. for Promoting Undergraduate Research in Math*, 245-249, ed., J. Gallian, Amer. Math. Soc., Providence, 2007.
- M. Dorff. Summer Mathematics Research Experience for Undergraduates (REU) at Brigham Young University. *Proc. for Promoting Undergraduate Research in Math.*, 23-26, ed. J. Gallian, Amer. Math. Soc., Providence, 2007.
- M. Dorff and L. Hall. “Solids in \mathbb{R}^n whose area is the derivative of the volume.” *The College Math. J.* **34** (2003), no. 5, 350-358.

Books

- M. Dorff, J. Rychtar, and D. Taylor. *The Future of Undergraduate Research in Mathematics*. Accepted for publication, 2022.
- M. Dorff, A. Henrich, and L. Pudwell. *A Mathematician's Practical Guide to Mentoring Undergraduate Research*. MAA Press: An Imprint of the American Mathematical Society, 2019.
- S. Joshi, M. Dorff, and I. Lahiri (Eds), *Current Topics in Pure and Computational Complex Analysis*, 21-46, Springer Trends in Mathematics, Springer Science-Business Media, New Delhi, 2014.
- M. Brilleslyper, M. Dorff, J. McDougall, J. Rolf, L. Schaubroeck, R. Stankewitz, and K. Stephenson. *Explorations in Complex Analysis*. Math. Assoc. of America. Washington, DC, 2012.

RESEARCH INTERESTS

Mathematics: Geometric function theory, complex analysis, minimal surfaces, and data analytics.
 Education: Undergraduate research, preparing students for nonacademic careers, popularizing mathematics, diversity and equity issues in mathematics.

STUDENTS INVOLVED IN RESEARCH

- M.S. students:
 - Robert Berry ('03-'04),
 - Lauritz Peterson ('04-'05),
 - Steve Taylor ('06-'07),
 - Matthew Romney ('12-'13),
 - Zach Boyd ('13-'14).
- Undergraduate students (year started):
 - 2004: Diana Dimond, Heather Florence
 - 2005: Laura Cannon, Angela Hicks, Ryan Hubscher, Adam Rich, Ashley Swannack, Jared Whitehead
 - 2006: Karla Hendricks, Brian Rushton
 - 2007: Tina Benhaim, Gia Bloomstrand, Amanda Clingerman, Evelyn Crofts, Leah Jackman, Darren Ong
 - 2009: Sam Ferguson, Laura Graham, Jordan Hull, Jessica Spicer, Melissa Yeung
 - 2010: Valmir Bucaj, Sarah Cannon, Amanda Curtis, Jamal Lawson, Rachel Messick, Ryan Viertel
 - 2011: Josh Kaminsky, Missy Lucas, Shaina Richardson, Matthew Romney, Chad

Witbeck

2012: Zach Boyd, Devin Gerrard

2013: Robert Buss, Susanna Fullmer, Ife George, Dan Walton

2014: Carol Herrera, Nikki Hong, Catherine Kellar, Derek Miller, Megan Searles

2015: Ashley Blair, Rebecca Redd, Natalie Wolford

2016: Kolten Pearson, Zach Taylor

2018: Eric Steadman, Drew Johnston, McKenna Pitts, Zach Chase, Peter Crawford,

2019: Rebecca Flores, Kate Smith, Chelsey Noorda, Cory Hunter

2020: Alexandra Butler Hudson, Kevin Tuttle, Shelby Gold, Alex Lee, Erin Pitts, Blake Sampson, Amy Woodall, Daniel South, Carina Watson

2021: Miles Carmack, Hailey Whetten, Clay Whiffen

2022: Sibipranav Muthuprakash

INTERNATIONAL AND NATIONAL SERVICE

Director of National Programs

- Executive director of TPSE Math (Transforming Post-Secondary Education in Mathematics) funded by Carnegie Corp. of New York for \$800,000, 2021-present.
- Founding co-director of *Preparing Students for Business, Industry, and Government Careers* (PIC Math) in connection with the MAA and funded by NSF for \$3.5 million, 2013-2021 (see <http://www.maa.org/pic-math>).
- Founding director of the *Center for Undergraduate Research in Math* (CURM) funded by NSF for \$2.6 million, 2006-2017.
- Director of the Regional Undergraduate Mathematics Conferences (RUMC) program at the MAA funded by NSF for \$600,000, 2012-2015.
- Founding director of the BYU Summer Mathematics Research Experience for Undergraduates (REU) funded by NSF for \$494,670, 2005-2012.
- Director of the one-week BYU Summer Mathematics Institute for undergraduates, 2001-2004.

National Organizations

- The Mathematical Association of America (MAA), which is the largest U.S. organization with about 25,000 members dedicated to the teaching and learning of undergraduate mathematics.
 - President, 2019-2021.
 - Member of the MAA Board of Governors, 2010-2013.
 - MAA national committee on *Business, Industry, and Government Careers*, member 2015-2018.
 - MAA national committee on *Haimo Teaching Award*, member 2014.
 - Chair of the *MAA Invited Addresses* Committee for the 2013 Joint Mathematics Meetings (largest annual mathematics conference) in San Diego, California, 2011-2013.
 - MAA national committee on *Early Career Mathematicians*, member 2007-2012, chair of committee 2009-2012.
 - MAA national committee on *Council on the Profession*, member 2009-2012.
 - MAA national subcommittee on *Research by Undergraduates*, member 2007-2012, chair of committee 2009-2012.
 - MAA national committee for *Strategic Planning Working Group* on STEM-related issues in Mathematics, member 2008-2009.
- Council on Undergraduate Research (CUR), which is a national organization promoting undergraduate research in all disciplines.
 - Member of the CUR Goldwater Scholar Award Selection Committee, 2016-2017.
 - Member of the CUR Executive Board, 2011-2014.
 - Chair of the Mathematics and Computer Science Division, 2011-2015.
 - Councilor in the Mathematics and Computer Science Division, 2008-2017.
 - Co-create and facilitator of CUR's Institute on Integrating Research into the Curriculum.

- American Mathematical Society (AMS), which is an international organization dedicated to mathematical research.
 - Member of the AMS Education Committee, 2018-present.
 - Chair of the AMS Subcommittee to Select the Winner of the Exemplary Program or Achievement by a Mathematics Department Award, 2016-2017; Member of the Committee 2014-2017.
 - Member of the AMS Subcommittee to Select the Winner of the Mathematics Programs That Make a Difference Award, 2015.
- Transforming Post-Secondary Education in Mathematics (TPSE Math)
 - Director of Strategy & Implementation, 2021-present.
 - Member of the Mathematics Advisory Group, 2018-present.
- College Board AP Capstone Program that consists of two new AP mixed disciplinary courses (AP Seminar and AP Research) for high school students to do group and individual research projects/papers/presentations.
 - Member of the AP Capstone Research Development Committee, 2015-2018.
 - Member of the AP Capstone Research Curriculum Development and Assessment Committee, 2014-2015.
 - Panelist of the 2015 AP Seminar Standard Setting Panel, Jun. 2015.

International Advisory Boards

- East African Centre for Mathematical Research in Kampala Uganda, member of the Steering Committee, 2019-present.

National Advisory Boards

- Mathematical Association of America (MAA), Executive Board, 2018-present.
- Council on Undergraduate Research (CUR), Executive Board, 2011-2014.
- Mathematical Association of America (MAA), Board of Governors, 2010-2013.

National Reviewer

- Invited on-site external reviewer for program reviews of mathematics departments and programs.
 - Montana State University, Sep. 2022.
 - Whitman College, Apr. 2022.
 - University of Portland, Mar. 2020.
 - Rollins College, Apr. 2019.
 - Middle Tennessee State University, Mar. 2017.
 - University of Nebraska – Omaha, Feb. 2016.
 - University of Minnesota – Duluth, Oct. 2015.
 - University of Cincinnati, Master of Art in Teaching Mathematics program, Aug. 2015.
 - University of Wisconsin – Eau Claire, Nov. 2013.
 - New College of Florida, Feb. 2012.
 - Denison University, Apr. 2011.
 - Winona University, Feb. 2011.
 - The College of New Jersey, May 2010.
 - Rowan University, Apr. 2010.
- Reviewer for National Science Foundation (NSF) grant proposals
 - 3 times panel reviewer, DUE (Division of Undergraduate Education) – TUES (Transforming Undergraduate Education in STEM).
 - 3 times proposal reviewer, DMS (Division of Mathematical Sciences) – Infrastructure Program.
 - 2 times panel reviewer, DMS – REU (Research Experiences for Undergraduates) Program.
 - 1 time panel reviewer, EHR, LSAMP (Louis Stokes Alliances for Minority Participation) Program.

- 1 time member of the Site Visit Review Team for DMS – MIE (Model Institutions for Excellence), Xavier Univ. in New Orleans, Louisiana.
- 3 times panel reviewer, DUE – CCLI (Course, Curriculum and Laboratory Improvement).
- 1 time proposal reviewer, DMS – Geometric Analysis.
- Panelist and reviewer for the report National Academy of Sciences, Engineering, and Medicine’s committee report “Undergraduate Research Experiences for STEM Students: Successes, Challenges, and Opportunities,” 2015-2016.
- Editorial Board:
 - Associate editor, *American Mathematical Monthly*, 2011-2019.
 - Associate editor, *MAA Math Horizons*, 2014-2018.
 - Associate editor, *Involve: a journal of mathematics*, 2007-present.
 - Associate Editor, *MAA FOCUS*, 2019-present.
- Journal referee for:
 - J. Math. Anal. Appl.*; *Amer. Math. Monthly*; *J. Inequal. Appl.*; *Complex Var. Elliptic Equ.*; *Comput. Methods Funct. Theory*; *Complex Var. Theory Appl.*; *Acta Mathematica Sinica*; *Rocky Mountain J. Math.*; *Involve*; *Analysis (Munich)*; *Abstr. Appl. Anal.*; *Computers and Math. Appl.*; *Ann. Univ. Mariae Curie-Skłodowska Sect. A*; *Int. J. Math. Math. Sci.*; *Int. J. Comput. Math.*; *Appl. Math Letters*; *Math. Comp. Model.*; *Open Math. Journal*; *Sci. China Math.*; *Bull. Malaysian Math. Sci. Soc.*; *Hacet. J. Math. Stat.*; *Arab. J. Sci. Eng.*; *Rose-Hulman Ugrad. Math. J.*; 2001-present.

Conference Organizer

- Co-organizer of the Data Analytics Workshop to train math and statistics faculty members how to solve data analytics problems. Sponsored by PIC Math. Brigham Young University, Utah, summer 2017, 2019, 2021 (virtual through ICERM), 2022.
- Organizer of the TPSE Leadership Workshop. Virtual in 2021 and in-person at Brigham Young University in 2022.
- Co-organizer of the PIC Math faculty summer workshop at Brigham Young University, Utah, summer 2014, 2015, 2016, 2018, 2019 and virtually in 2021.
- Co-organizer of TPSE Regional Workshop at Worcester Polytechnic Institute (2018) and Utah Valley University (2018).
- Main organizer of the CURM Faculty Summer Training Workshop to train faculty on how to successfully mentor undergraduate students in research, Utah, summer 2007-2016.
- Main organizer of the Center for Undergraduate Research in Mathematics (CURM) spring research conference at Brigham Young University, Utah, Mar. 2010-2014.
- Main organizer of the joint Center for Undergraduate Research in Mathematics (CURM) and MAA Intermountain Sectional Meeting at Brigham Young University, Utah, Mar. 2008, 2009, and 2015.
- Co-organizer of the MAA Project Leadership conference, in Washington, D.C., Apr. 2013.
- Co-organizer of the Trends in Undergraduate Research in the Mathematical Sciences (TURMS) conference, in Chicago, Illinois, Oct. 2012.
- Main organizer of the “2008 One and Several Complex Variables Conference,” at the University of Kentucky, May 2008.

STATE/UNIVERSITY/DEPARTMENT SERVICE

- Chair, BYU Department of Mathematics, 2015-2019.
- Member of the BYU General Education Committee to revise the university’s general education program, 2020.
- Member of the Graduate Committee, 2021-present.
- Member of the Calculus Committee, 2014-2015, 2019-2021.
- Associate chair (in charge of department activities related to the undergraduate program), BYU Department of Mathematics, 2006-2011.

- Member of the Dean selection committee for the BYU College of Physical and Mathematical Sciences, 2007.
- Member of the Utah Office of Education Committee to evaluate the Utah State K-12 Mathematics Standards, 2006.
- Member of the BYU CITES (Center for the Improvement of Teaching Education and Schooling) Math Initiative Committee consisting of representatives from 5 local public school districts and BYU faculty with a commission from Dean Richard Young of the College of Education “to engage in an exploration of an approach to teaching numeracy which would be more effective in helping children to learn,” 2004-present.
- Member of the Department's Graduate Committee, 2002-2006.

TEACHING EXPERIENCE

- August 2000-present, Department of Mathematics, Brigham Young University. Courses taught include:
 - Freshman Level: Intro to Being a Math Major, Calculus I, Calculus II, Calculus for Non-Science Majors.
 - Sophomore Level: Calculus of Several Variables, Ordinary Differential Equations, Advanced Engineering Math.
 - Junior Level: Complex Variables, Geometry for Perspective Teachers, Differential Geometry.
 - Graduate Level: Complex Analysis, Differential Geometry, Real Analysis.
- August 1997-2000. Assistant Professor, Department of Mathematics and Statistics, University of Missouri - Rolla. Courses taught include:
 - Freshman Level: Calculus I, Calculus II.
 - Junior Level: Linear Algebra, Mathematics for Elementary School Teachers.
 - Senior Level: Complex Variables, Tensor Calculus, Differential Geometry.
 - Graduate Level: Intro. to Real Analysis, Complex Analysis I, Complex Analysis II.

INVITED TALKS ON RESEARCH TOPICS

- Invited speaker at the VIII Congressio-Mathematica Conference, Olsztyn, Poland, Sep. 2022.
- Colloquium speaker at Brigham Young University, Nov. 2022.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, Baltimore, Maryland., Jan. 2019.
- Colloquium speaker at University of Montana, Montana, Jan. 2018.
- Invited speaker at Computational Methods and Function Theory Conference, Lublin, Poland, Jul. 2017.
- Colloquium speaker at Universiti Sains Malaysia, Penang, Malaysia, Mar. 2017.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, Atlanta, Georgia., Jan. 2017.
- Invited speaker at International Conference on Mathematical Analysis and Its Applications, IIT Roorkee, India, Nov. 2016.
- Colloquium speaker at Georgia Southern University, Georgia, Apr. 2016.
- Colloquium speaker at University of Northern Texas, Texas, Feb. 2015.
- Colloquium speaker at University of Central Florida, Florida, Apr. 2015.
- Colloquium speaker at Florida Atlantic University, Florida, Apr. 2015.
- Colloquium speaker at Boise State University, Idaho, Feb. 2015.
- Plenary speaker at the Red Raider Symposium at Texas Tech University, Texas, Nov. 2014.
- Colloquium speaker at University of Minnesota - Duluth, Duluth, Minnesota, Sep. 2013.
- Invited speaker at MAA MathFest 2013, Hartford, Connecticut, Aug. 2013.
- Invited speaker at Computational Methods and Function Theory Conference, Shantou, China, Jun. 2013.
- Plenary speaker at the International Workshop on Complex Analysis and Its Applications, Sangli, India, July 2012 giving three one-hour talks.
- Plenary speaker at the Harmonic and Quasiconformal Mappings ICM 2010-Satellite Conference and Workshop, Chennai, India, Aug. 2010 giving three one-hour talks.

- Colloquium speaker at Univ. of Colorado at Colorado Springs, Apr. 2010.
- Colloquium speaker at US Air Force Academy, Colorado, Mar. 2010.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, San Francisco, California, Jan. 2010.
- Invited speaker at the AMS regional meeting, Waco, Texas, Oct. 2009.
- Colloquium speaker at Fresno State Univ., California, Sep. 2009.
- Colloquium speaker at Univ. of Northern Iowa, Apr. 2009.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, Washington, D.C., Jan. 2009.
- Colloquium speaker at Colorado College, Colorado, Oct. 2008.
- Invited speaker at the Geometric Function Theory Conference, Petrozavodsk, Russia, Jul. 2008.
- Invited speaker at the Complex Analysis and Special Functions Workshop, Texas Tech Univ., Nov. 2007.
- Invited speaker at the AMS/Polish Mathematical Society international conference, Warsaw, Poland, Aug. 2007.
- Colloquium speaker at the Instytut Matematyki, Uniwersytet Marii Curie-Skłodowskiej, Lublin, Poland, May 2007.
- Seminar speaker at the Instytut Matematyki, Katolicki Uniwersytet Lubelski (a set of 5 lectures), Lublin, Poland, Dec. 2005-Jan. 2006.
- Seminar speaker at the Instytut Matematyki, Uniwersytet Marii Curie-Skłodowskiej (a set of 12 lectures), Lublin, Poland, Oct. 2005-Jan. 2006.
- Invited speaker at the Computational Methods and Function Theory Conference, Joensuu, Finland, Jun. 2005.
- Invited speaker at the Special Functions in Harmonic Analysis and Applications Conf., Irsee, Germany, Jul. 2004.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, Phoenix, Arizona, Jan. 2004.
- Colloquium speaker at the Instytut Matematyki, Katolicki Uniwersytet Lubelski, Lublin, Poland, Dec. 2003.
- Colloquium speaker at the Instytut Matematyki, Uniwersytet Marii Curie-Skłodowskiej, Lublin, Poland, July 2003.
- Colloquium speaker at the Instytut Matematyki, Politechnika Rzeszowska, Rzeszów, Poland, June 2003.
- Colloquium speaker at the Instytut Matematyki, Politechnika Łódzka, Łódź, Poland, June 2003.
- Invited speaker at the American Mathematical Society regional meeting, Portland, Oregon, Jun. 2002.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, San Diego, California, Jan. 2002.
- Colloquium speaker at the Instytut Matematyki, Uniwersytet Marii Curie-Skłodowskiej, Lublin, Poland, May 2001.
- Colloquium speaker at the Instytut Matematyki, Politechnika Łódzka, Łódź, Poland, May 2001.
- Plenary speaker at the Show-Me State Lectures, St. Louis, Missouri, Apr. 2000.
- Invited speaker at the Second International Workshop on Planar Harmonic Mappings, Technion, Haifa, Israel, Jan. 2000.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, San Antonio, Texas, Jan. 1999.
- Invited speaker at the Computational Methods and Function Theory Conference, Nicosia, Cyprus, Oct. 1997.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, San Diego, California, Jan. 1997.
- Invited speaker at the Joint AMS/MAA Mathematics Meeting, Orlando, Florida, Jan. 1996.

SELECTED GENERAL PRESENTATIONS (OVER 250 TALKS GIVEN)

Expository: Careers in Mathematics

- 2022: Columbia University Teacher's College (virtual), Florida Poly Tech, Singapore Mathematics Teachers Conference (virtual), Project NExT Workshop at MAA MathFest
- 2021: Electronic Seminar on Mathematics Education, MAA Intermountain Section Meeting – virtual, MAA OK-AR Section Meeting student workshop – virtual, PIC Math workshop – virtual, MAA PNW Section Meeting Section NExT panel – virtual, MAA PNW Section Meeting Section - virtual
- 2020: Makerere University in Uganda, MAA Florida Section Meeting
- 2019: Michigan State Univ Math Ed Conference, NCTM Annual Meeting in San Diego, Carthage College, WVXU PBS Public Radio Interview in Cincinnati, AMS Committee on Education Annual Conference in Washington DC
- 2018: SIAM Annual Meeting in Portland, MAA MathFest in Denver, AMATYC Annual Meeting in Orlando, 11th International Conference SMEDC in Laos, Royal Univ of Phnom Penh, Royal Academy of Cambodia
- 2017: Joint AMS/MAA Mathematics Meeting in Atlanta, Univ of Arizona, AAAS Annual Meeting in Boston, AMS Western Regional Meeting at Washington State Univ, MUMS/CURM Ugrad Research Conference in Iowa, AAAS Western Regional Meeting.
- 2016: Joint AMS/MAA Mathematics Meeting in Seattle, MAA Rocky Mountain Section Meeting, NSF EnFUSE Conf. in Wash DC, CURM Workshop, PIC Math Workshop, CUR Biennial, SIAM Conf on Applied Math. Education, Kalamazoo College, Grand Valley State Univ, Calvin College, MaTRIC 2016 in Norway, panelist at TPSE Workshop in Washington DC, ICSMEDC 2016 in Myanmar
- 2015: Joint AMS/MAA Mathematics Meeting in San Antonio, Taylor Univ., Ball State Univ., Univ of North Alabama, Elon Univ, SIAM Computational Science and Engineering Conf., Math Teachers Professional Development Day in Alpine School District
- 2014: Joint AMS/MAA Mathematics Meeting in Baltimore, LaGuardia Community College in NYC, Montclair State Univ., Timpview High School, Embry-Riddle Ugrad. Math. Conf., CURM Spring Research Conf. at Brigham Young Univ., Spring Ohio MAA Meeting at Univ. of Toledo, CUR Biennial Conf. in Washington DC, MAA MathFest in Portland, MA+H: applied series at Coastal Carolina Univ.,
- 2013: Joint AMS/MAA Mathematics Meeting in San Diego, Timpview High School, Spring Georgia MAA State Lunch, Spring Texas MAA Meeting at Texas Tech Univ., Georgia College, University of Minnesota – Duluth, Kentucky Research by Ugrad. Math. Conf. at Centre College
- 2012: Joint AMS/MAA Mathematics Meeting in Boston, Grinnell College, Spring Intermountain MAA Meeting at Westminster College, Spring Rocky Mountain MAA Meeting at Univ. of Colorado at Denver, PURE Math REU at Univ. of Hawaii in Hilo, St. Michael's College, St. Mary's College of Maryland, James Madison Univ., Univ. of Scranton, Math class for K-8 teachers at Davidson College, Univ. of North Carolina at Greensboro Regional Math. and Statistics Conf., Marymount Univ., Denison Univ.

Expository: Movies and mathematics

- 2022: Appalachian State University (virtual), BYU – Hawaii, Kappa Mu Epsilon OK Regional Convention (virtual), Florida Poly Tech University, Saint Leo University, University of Guam, BYU
- 2021: FUNDAPROMAT (Panamanian Foundation for the Promotion of Mathematics) – virtual, MAA OK-AR Section Meeting – virtual, MAA PNW Section Meeting Section - virtual
- 2020: University of Washington Tacoma, Weber State University in Ogden UT, TORUS Conference at Cameron University in Lawton OK, MAA Florida Section Meeting, MAA Golden Section Meeting in Oakland CA

- 2019: Rwanda Pi-Day Celebration in Kigali, MAA Kentucky Section Meeting, MAA Wisconsin Section Meeting, MAA EPaDel Section Meeting, AMATYC Annual Meeting in Milwaukee
- 2018: Occidental College, MAA Louisiana/Mississippi Section Meeting, MAA Southeastern Section Meeting, MAA Allegheny Section Meeting, MAA Nebraska Section Meeting, MAA Iowa Section Meeting
- 2017: MUMS/CURM Ugrad Research Conference in Iowa, MAA Intermountain Section Meeting, MAA Rocky Mountain Section Meeting, Rochester Institute of Tech, Panama STEM fair
- 2016: Univ. of North Texas, Univ. of Northern Colorado, AMC Middle School Math Recognition Ceremony at Brigham Young Univ., MAA Southern Calif. Section Meeting, Furman Univ., Winthrop Univ., Ferris State Univ., Grand Valley State Univ., Calvin College
- 2015: Indiana Univ., Boise State Univ., Whitman Univ., Central Washington Univ., Wake Forest Univ., Elon Univ., Univ. of North Carolina Greensboro, MAA Intermountain Section Meeting, Florida Atlantic Univ., Univ. of Nebraska - Lincoln
- 2014: Texas Oklahoma Regional Ugrad. Symposium at Cameron Univ., CURM Spring Research Conf. at Brigham Young Univ., Sehnert Lecture Series at the Northern Kentucky Univ., Red Raider Symposium General Public Keynote Presentation at Texas Tech Univ.

Expository: Data Science

- 2022: University of Guam, Sun Coast Math Conference at Florida Poly Tech University, Interdisciplinary Data Science Training Faculty Workshop

Expository: Soap Bubbles and Mathematics

- 2020: Northeastern State University in OK, BAMA Series at Santa Clara Univ in CA
- 2019: MAA MathFest President's Jubilee in Cincinnati, 12th International Conference SMEDC in Laos
- 2018: Westmont College, Rwanda Pi-Day Celebration in Kigali, New generation (Preach Sisowat High School)
- 2017: Universiti Sains Malaysia, Cambodia STEM Fair in Phnom Peng, Royal Univ of Phnom Penh, 10th International Conference SMEDC in Myanmar
- 2016: High School Math Recognition Banquet at Brigham Young Univ.
- 2015: Joint AMS/MAA Mathematics Meeting in San Antonio, Univ. of North Alabama, Regional Ugrad. Math. Conf. at Lee University, High School Math Recognition Banquet at Brigham Young Univ.
- 2014: Texas Oklahoma Regional Ugrad. Symposium at Cameron Univ., Embry-Riddle Ugrad. Math. Conf., Utah Valley Univ. PREP for middle school students, Northern Kentucky Univ., Coastal Carolina Univ., Utah Regional Ugrad. Symposium at Utah Valley Univ.
- 2013: Fifth Biennial Mercer Univ. Ugrad. Math. Conf., Lone Peak High School, Pacific Coast Ugrad. Math. Conf. at Cal Poly Pomona, Family Program Math. of Various Entertaining Subjects at the MOVES Conf. at the Museum of Math. in NYC, Georgia College, Kentucky Research by Ugrad. Math. Conf. at Centre College
- 2012: Univ. of Tennessee, Univ. of Tennessee Ugrad. Math. Conf., PURE Math summer REU at Univ. of Hawaii in Hilo, Grand Valley State Univ summer math REU, Rochester Institute of Tech. summer math REU, Longwood Univ., James Madison Univ., MAA Carriage House Lecture speaker in Washington DC, Kennesaw Mountain Ugrad. Math. Conf., Davidson College, Univ. of Richmond, Washington and Lee Univ., Hood College
- 2011: Jackson State Univ., St. Mary's College of Maryland, Robert Noyce Teacher Scholarship Colloquium at East Central Univ., Midwest Ugrad. Math. Symposium at Simpson College, Univ. of Kentucky, Calvin College, Spring Michigan MAA Meeting at Western Michigan Univ., Willamette Univ., Univ. of California in Irvine, Springville Middle

School

- 2010: Calif. State Univ. Long Beach, Calif. State Univ. Fullerton, Distinguished Math. Lecture Series at Winona State Univ., Univ. of Wisconsin – Stout, Bronx High School of Science in NYC, CUNY Tech, Lyman Briggs College at Michigan State Univ., Math for Everyone Series speaker at Univ. of Notre Dame

Mentoring Students in Undergraduate Research

- 2022: Philippines Mathematics Society of Bulacan State University (virtual), Project NExT at JMM (virtual), MAA OPEN Math on DEI and UR (virtual), CURM faculty training workshop (virtual),
- 2021: Mathematical Society of the Philippines (MSP) Annual Convention – virtual, MSRI panel - virtual, MAA OK-AR Section Meeting Section NExT – virtual, CURM faculty workshop –virtual
- 2020: CUR webinar on Undergraduate Research
- 2018: CUR Biennial Conference in Arlington VA
- 2017: National Academies of Science in Washington DC, Rochester Institute of Tech,
- 2016: Ferris State Univ.
- 2015: Joint AMS/MAA Mathematics Meeting in San Antonio, Central Washington Univ., Project NExT panel at MAA MathFest in Washington DC, panel for the National Academies of Science in Washington DC
- 2014: Project NExT panel at Joint Mathematics Meetings in Baltimore, Section NExT workshop at Spring Ohio MAA Meeting at Univ. of Toledo, poster presentation at the CUR Biennial Conf. in Washington DC, MAA MathFest in Portland
- 2013: Panelist at Joint Mathematics Meetings in San Diego, Boise State Univ., CUR Institute presenter at Cameron Univ., Section NExT workshop at the Spring Texas MAA Meeting at Texas Tech Univ., The College of New Jersey, Math Faculty Workshop on Undergraduate Research at Montclair State Univ., College of Science Faculty Workshop on Undergraduate Research at The College of New Jersey
- 2012: Panelist at Joint Mathematics Meetings in Boston, Utah Valley Univ., MAA MathFest meeting in Madison, Kennesaw Mountain Ugrad. Math.Conf., Trends in Ugrad Research in the Mathematical Sciences (TURMS) conference in Chicago
- 2011: Panelist at Joint Mathematics Meetings in New Orleans, Jackson State Univ., Conf. of Research Experiences for Ugrad. Student Scholarship sponsored by the Council on Undergraduate Research (CUR) in Washington DC

Recruiting Students to Take More Mathematics

- Colloquium speaker at Univ. of California, Irvine, Oct. 2011.
- Plenary speaker at the 2011 Project NExT summer workshop before the MAA MathFest Meeting, Lexington, Kentucky, Aug. 2011.
- Plenary speaker at the “Haimo Award Presentation,” 2010 Joint AMS/MAA Mathematics Meeting, San Francisco, California, Jan. 2010.
- Distinguished Mathematics Lecture Series, Talk 3, at Winona State Univ., Minnesota, Apr. 2010.

Higher Education Issues

- MAA Intermountain Section Meeting, Mar 2022.
- MAA MathFest, Aug 2022.
- US-ICME 14 workshop connected with NCTM annual conference, Oct 2022.

Other Topics

- “The Myths of Leadership” at the TPSE Math Leadership Institute, Jun 2022.
- Finding funding and getting grants at MAA OPEN Math on DEI and UR (virtual), May 2022.

- MAA President’s Farewell Address on “Who Are the Frodos and Celies of Mathematics” at MAA MathFest, Aug. 2021 – virtual.
- AMS Central Section Meeting Invited Talk on “Bringing About Cultural Change in Departments, Institutions, and Organizations, Oct 2021 – virtual
- University of Kentucky Teaching Colloquium on “Virtual Teaching on Large Mathematics Classes,” Nov 2020.
- Keynote speaker on “Communicating Mathematical Meaning” at the MatRIC Annual Conference 2019 in Bergen, Norway, Oct. 2019.
- Keynote speaker on “Getting funding to do research” at the 4th Network Meeting for Sida and ISP Funded PhD Students and Postdocs in Mathematics in Bishoftu, Ethiopia, Aug 2019.
- Panelist presenter on “Applying for and Obtaining Grants” at the 2015 MathFest Meetings, Washington, DC, Aug. 2015.
- Panel presenter on “Independent Study Courses,” Project NExT Workshop before the 2014 MathFest, Portland, Oregon, Aug. 2014.
- Webinar panelist on “Professional Science Master’s Program,” CUR, Oct. 2013.
- Invited speaker on “What’s new at the MAA” at the 2013 Spring Intermountain MAA Meeting at BYU – Idaho, Idaho, Mar. 2013.
- Panel presenter on “Professorial Development” at the 2013 Joint Mathematics Meetings, San Diego, California, Jan. 2013.
- Plenary speaker at the 2011 “Math Excel 20th Anniversary Celebration” in honor of Mike Freeman, Univ. of Kentucky, Apr. 2011.

WORKSHOPS GIVEN

- Workshops on Mentoring Students in Undergraduate Research: MAA Wisconsin Section (2019), MAA Southeastern Section Meeting (2018), Rochester Institute of Technology (2017), Univ of North Carolina Greensboro Undergraduate Research Mathematics Conf. (2016), Central Washington University (2015), MAA Texas Section Meeting (2013), Boise State Univ (2013), The College of New Jersey (2013), MAA Northeastern Section Fall Dinner (2012), Kennesaw State Undergraduate Research Mathematics Conf. (2012).
- Workshops at 3-day faculty training workshop for the Center for Undergraduate Research in Mathematics (CURM), Utah, summer 2007 – 2016, 2018, 2019.
- Workshops at 3-day faculty training workshop for Preparing Students for Industrial Careers (PIC Math) at Brigham Young University, Utah, summer 2014 – present.
- CUR Institute on “Integrating Undergraduate Research in the Curriculum,” Trinity College, Washington, D.C., Mar 2015.
- Workshop at 4-day high school and middle school math teacher professional development with the Toyota Applied Math Initiative (TAMI) at Brigham Young University, Utah, Jun 2015.
- Workshop on “Careers in Math” at the joint MAA/CURM Spring Conference at BYU, Utah, Mar. 2015.
- Workshop on “Visual Topics Using Undergraduate Complex Analysis” at the Joint Mathematics Meetings. 2015, 2016.
- Workshop on “Advising students on what they can do with math,” Project NExT Workshop before the 2014 MathFest, Portland, Oregon, Aug. 2014.
- Workshop on “Recruiting students” at the MAA MathFest Meeting, Aug. 2010, 2011, 2015.
- CUR Institute on Undergraduate Research, Cameron University, Apr 2013.

PROFESSIONAL AFFILIATIONS

- American Association for the Advancement of Science (AAAS)
- American Mathematical Society (AMS)
- Association for Women in Mathematics (AWM)
- Council on Undergraduate Research (CUR)

- Fulbright Association
- Mathematics Association of America (MAA)
- Society of Industrial and Applied Mathematics (SIAM)