

# ALLISON HENRICH

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## EDUCATION

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<b>Dartmouth College</b> Ph.D., Mathematics, Advisor: Vladimir Chernov	Summer 2005 – Spring 2008
<b>Dartmouth College</b> M.A., Mathematics	Fall 2003 – Spring 2005
<b>University of Washington, Seattle</b> B.S., Mathematics, <i>Magna Cum Laude</i> B.A., Philosophy, <i>Magna Cum Laude</i>	Fall 1999 – Spring 2003

## APPOINTMENTS

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<b>Associate Professor</b> Seattle University	Summer 2014 – present
<b>Mathematics Department Chair</b> Seattle University	Summer 2014 – Summer 2017
<b>Assistant Professor</b> Seattle University	Summer 2009 – Spring 2014
<b>Research Experiences for Undergraduates Mentor</b> University of Washington, Math REU	Summers 2010, 2011, 2012
<b>Research Experiences for Undergraduates Mentor</b> Williams College, SMALL REU	Summer 2009
<b>Assistant Professor</b> Oberlin College	Fall 2008 – Spring 2009
<b>Instructor</b> Bellevue Community College	Winter 2001 – Spring 2003

## TEACHING EXPERIENCE

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**Seattle University**  
*UCOR 1200 / MATH 107 — Quantitative Literacy and Social Justice*  
Fall 2010, Winter 2011, Spring 2013, Fall 2013, Winter 2014, Fall 2014, Spring 2015,  
Fall 2016, Winter 2019  
*MATH 1000 / MATH 110 — Functions and Algebraic Methods*  
Fall 2012  
*MATH 1022 / MATH 1322 / MATH 121 — Precalculus: Trigonometry*  
Fall 2015 (2 sections)  
*MATH 1331 / MATH 132 / MATH 191 — Calculus with Algebra I (a)*  
Fall 2012, Fall 2013  
*MATH 1332 / MATH 133 / MATH 191 — Calculus with Algebra I (b)*  
Winter 2013, Winter 2014

**Seattle University (cont.)***MATH 1334 / MATH 134 — Calculus I*

Winter 2010 (2 sections), Fall 2010, Spring 2011, Winter 2012 (3 sections)

*MATH 1335 / MATH 135 — Calculus II*

Fall 2009 (2 sections), Spring 2014

*MATH 3000 / MATH 310 — Introduction to Advanced Mathematics*

Spring 2010, Spring 2012, Spring 2013

*MATH 3910 / MATH 391 — Introduction to Knot Theory*

Spring 2016

*MATH 3910 / MATH 391 — Knot Theory and Topology*

Winter 2011

*MATH 4460 / MATH 3910 / MATH 391 — Introduction to Topology*

Winter 2013

**Oberlin College***MATH 134 — Calculus II*

Fall 2008, Spring 2009 (2 sections)

*MATH 353 — Topology*

Fall 2008

**Dartmouth College***MATH 2 — Calculus II*

Winter 2006

*MATH 3 — Calculus I and II*

Fall 2006

*Graduate Mini-course on Algebraic Topology*

Summer 2007

**Bellevue Community College***PHIL 120 — Introduction to Logic for Math, CS, and Engineering Majors*

Winter 2001, Spring 2001, Fall 2001, Winter 2002, Spring 2002, Fall 2002, Winter 2003, Spring 2003

**PUBLICATIONS**

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*Note: The symbol (\*) denotes undergraduate coauthors, and (<sup>†</sup>) denotes graduate student coauthors.***Mathematics Research** (Peer reviewed)

1. Allison Henrich. “A Sequence of Degree One Vassiliev Invariants for Virtual Knots.” *Journal of Knot Theory and Its Ramifications*, Vol. 19, No. 4 (2010), 461–487.
2. Allison Henrich and Sam Nelson. “Semiquandles and Flat Virtual Knots.” *Pacific Journal of Mathematics*, Vol. 248, No.1 (2010), 155–170.

3. Allison Henrich, Noel MacNaughton\*, Sneha Narayan\*, Oliver Pechenik\* and Jennifer Townsend\*. “Classical and Virtual Pseudodiagram Theory and New Bounds on Unknotting Numbers and Genus.” *Journal of Knot Theory and Its Ramifications*, Vol. 20, No. 4 (2011), 625–650.
4. Allison Henrich, Noel MacNaughton\*, Sneha Narayan\*, Oliver Pechenik\*, Robert Silversmith\* and Jennifer Townsend\*. “A Midsummer Knot’s Dream.” *College Math Journal*, Vol. 42, No. 2 (2011), 126–134.
5. Allison Henrich and Inga Johnson. “The Link Smoothing Game.” *AKCE International Journal of Graphs and Combinatorics*, Vol. 9, No. 2 (2012) 145–159.
6. Alissa Crans, Allison Henrich, and Sam Nelson. “Polynomial Knot and Link Invariants from the Virtual Biquandle”. *Journal of Knot Theory and Its Ramifications*, Vol. 22, No. 4 (2013) 1–15.
7. Allison Henrich, Rebecca Hoberg<sup>†</sup>, Slavik Jablan, Lee Johnson\*, Elizabeth Minten\*, and Ljiljana Radović. “The Theory of Pseudoknots.” *Journal of Knot Theory and Its Ramifications*, Vol. 22, No. 7 (2013) 1–21.
8. Allison Henrich and Louis Kauffman. “Unknotting Unknots.” *American Mathematical Monthly*, Vol. 121, No. 5 (2014) 379–390.
9. Allison Henrich and Slavik Jablan. “On the Coloring of Pseudoknots.” *Journal of Knot Theory and Its Ramifications*, Vol. 23, No. 12 (2014).
10. Tomas Boothby<sup>†</sup>, Alexander Leaf\*, and Allison Henrich. “Minimal Diagrams of Free Knots.” *Journal of Knot Theory and Its Ramifications*, Vol. 23, No. 6 (2014).
11. François Dorais, Allison Henrich, Slavik Jablan, and Inga Johnson. “Isotopy and Homotopy Invariants of Classical and Virtual Pseudoknots.” *Osaka Journal of Mathematics*, Vol. 52, No. 2 (2015).
12. Allison Henrich, Slavik Jablan, and Inga Johnson. “The Signed Weighted Resolution Set is Not a Complete Pseudoknot Invariant.” *Journal of Knot Theory and Its Ramifications*, Vol. 25, No. 9 (2016).
13. Allison Henrich and Louis Kauffman. “Tangle Insertion Invariants for Pseudoknots, Singular Knots, and Rigid Vertex Spatial Graphs.” in *E. Flapan, A. Henrich, A. Kaestner, and S. Nelson (Eds.), Knot Theoretic Structures & Spatial Graphs, American Mathematical Society, Providence, RI, (2017).*
14. Sarah Brown\*, Franky Cabrera\*, Riley Evans\*, Gianni Gibbs\*, Allison Henrich, and James Kreinbihl<sup>†</sup>. “The Region Unknotting Game.” *Mathematics Magazine*, Vol. 90, No. 5 (2017).
15. Jason Cantarella, Allison Henrich, Elsa Magness\*, Oliver O’Keefe\*, Kayla Perez\*, Eric Rawdon, and Briana Zimmer\*. “Knot fertility and lineage.” *Journal of Knot Theory and Its Ramifications*, Vol. 26, No. 13 (2017).
16. Colin Adams, Allison Henrich, Kate Kearney, and Nicholas Scoville. “Knots Related by Knotoids.” *accepted for publication by the American Mathematical Monthly*, (2018).

#### **Education Research & Writing** (Peer reviewed)

1. Allison Henrich and Kristi Lee. “Reducing Math Anxiety: Findings from Incorporating Service Learning into a Quantitative Reasoning Course at Seattle University.” *Numeracy*, Vol. 4, No. 2, (2011).

2. John Carter, Dylan Helliwell, Allison Henrich, Maria Principe\*, and J. McLean Slougher. “Oral Assessments: Improving Student Success in Calculus at Seattle University.” *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, Vol. 26, No. 2, DOI:10.1080/10511970.2015.1067264, (2015) 105–124.

3. Allison Henrich, J. McLean Slougher, Jeffrey Anderson, and Eric Bahuaud. “Addressing negative math attitudes with service-learning.” *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, Vol. 26, No. 8, DOI:10.1080/10511970.2016.1174967, (2016) 788–802.

4. Michael Dorff, Allison Henrich, and Lara Pudwell. “Successfully Mentoring Undergraduates in Research: A How To Guide for Mathematicians.” *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies* Vol. 27, No. 3, DOI:10.1080/10511970.2016.1183248, (2017) 320–336.

## Articles

1. Moshe Cohen and Allison Henrich. “A Knot Game with not K Nerds.” *Math Horizons*, November 2012, 25–29.

2. Allison Henrich and Jeffrey Anderson. “Service-Learning in a Quantitative Reasoning Course.” *Peer Review: A Journal of the Association of American Colleges & Universities*, 2014.

3. Allison Henrich. “Visions of Mathematics.” *Introduction to artist’s book Dreams of Pythagorus by Michael Schultheis*, 2014.

4. Allison Henrich. “I am so glad you made that mistake!” *AMS Blog On Teaching and Learning Mathematics*, 2017.

5. Allison Henrich. “The Power of Bravery” *MAA FOCUS*, June/July 2018, 16–17.

## Books

1. Inga Johnson and Allison Henrich. *An Interactive Introduction to Knot Theory*, Dover Publications, Inc., Mineola, NY, 2017.

2. Michael Dorff, Allison Henrich, and Lara Pudwell. *A Mathematician’s Practical Guide to Mentoring Undergraduate Research*, to be published jointly by the Mathematical Association of America, the American Mathematical Society, and the Council on Undergraduate Research, 2019.

## Edited Books

1. Eds. Erica Flapan, Allison Henrich, Aaron Kaestner, and Sam Nelson. *Knots, Links, Spatial Graphs, and Algebraic Invariants*, American Mathematical Society, Providence, RI, 2017.

2. Eds. Colin Adams, Erica Flapan, Allison Henrich, Louis Kauffman, Lew Ludwig, and Sam Nelson. *A Concise Encyclopedia of Knot Theory*, to be published by Taylor & Francis, 2019.

3. Eds. Allison Henrich, Emille Lawrence, Matthew Pons, and Dave Taylor. *The Struggle is Real: Stories of Struggle and Resilience on the Path to Becoming a Mathematician*, (tentatively) to be published by MAA publishing, 2019.

## Educational Products

1. Developed online training course, *Course 9: Writing About Research*, as a part of the training program, *Research as a Transferrable Skill*, for undergraduate researchers in all disciplines. Published by Epigeum, a division of Oxford University Press, 2018.

## EXTERNAL GRANTS FUNDED

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*Seattle University Mathematics Early Research Program* NSF DMS Grant #1460537  
 Awarded \$279,997 by the National Science Foundation Division of Mathematical Sciences with co-PI Steve Klee for 2015-2017 to run a summer research program for undergraduates for three summers.

*Simons Collaboration Grant*  
 Awarded \$35,000 by the Simons Foundation, to be used between Fall 2016 and Summer 2021 to fund travel and other expenditures related to collaboration.

*Association of Women in Mathematics Travel Grant*  
 Awarded \$975 for travel to AMS sectional meeting in Lawrence, KS in 2012.

## HONORS AND AWARDS

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Henry L. Alder Award for Distinguished Teaching (2015)  
 Awarded by the Mathematical Association of America annually to no more than three beginning college or university faculty whose teaching has been extraordinarily successful and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond their own classrooms.

Paul R. Halmos – Lester R. Ford Award (2015)  
 Awarded by the Mathematical Association of America to recognize authors of articles of expository excellence published in *The American Mathematical Monthly*.

Seattle University Summer Faculty Fellowship (2013)  
 Awarded \$7500 for conducting knot theory research in the summer.

Seattle University Summer Research Faculty Stipend (2011)  
 Awarded \$7500 for mentoring undergraduate researchers.

Filene Graduate Teaching Award (2008)  
 Awarded to two Dartmouth College graduate students each year for excellence in teaching.

Arts and Sciences Graduate Community Award (2008)  
 Awarded to two Dartmouth College graduate students each year for outstanding community service on behalf of the Arts and Sciences Dartmouth graduate community.

Phi Beta Kappa (2003)

## RECENT PRESENTATIONS

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**Its All Fun and Games Until Someone Becomes a Mathematician**  
*March 23, 2018*

MAA Tri-section Meeting, Valparaiso University, Plenary Talk

*March 19, 2018*

University of Washington Math Day, Invited Talk

*February 14, 2018*

Pacific Lutheran University, Mathematics Colloquium

*November 11, 2017*

University of Dayton Undergraduate Math Day, Plenary Talk

**Its All Fun and Games Until Someone Becomes a Mathematician (cont.)***November 7, 2017*

University of Washington Tacoma, Invited Talk

*October 14, 2017*Northwest Undergraduate Mathematics Symposium, Western Washington University,  
Plenary Talk*September 21, 2017*

Harvey Mudd College, Michael E. Moody Lecture

**A Knotty Exploration of Magic and Math***March 28, 2018*

Central Washington University, Mount Stuart Mathematics Seminar Talk &amp; Workshop

*February 28, 2018*Elon University, *Pi Mu Epsilon* Invited Talk & Workshop*February 27, 2018*

Davidson College, Invited Talk &amp; Workshop

**An Intransitive Relation on Knots***November 4, 2017*

AMS Sectional Meeting, Riverside, CA, Invited Talk

*September 19, 2017*

Claremont Colleges Topology Seminar, Invited Talk

**Teaching An Interactive Introduction to Knot Theory***July 29, 2017*

MathFest, Chicago, IL, Contributed Talk

**Daily Student Presentations in Quantitative Reasoning and Calculus***June 17, 2017*

Pacific Northwest MAA Sectional Meeting, Gonzaga University, Contributed Talk

*January 11, 2015*

Joint Mathematics Meetings, San Antonio, TX, Contributed Talk

**Knot Fertility and Heredity***March 11, 2017*

AMS Sectional Meeting, Charleston, SC, Invited Talk

*January 5, 2017*

Joint Mathematics Meetings, Atlanta, GA, Invited Talk

**Knotty Games***November 10, 2016*Brigham Young University, *Focus on Math* Invited Talk*April 1, 2016*

University of Central Arkansas, OK-AR MAA Section Meeting, Court Lecture

**Knotty Games (cont.)***February 11, 2016*

Seattle University, Colloquium Talk

**This is Knot a Trick!***August 5, 2016*

MathFest, Columbus, OH, Invited Talk

**Unknotting Knots***August 4, 2016*

MathFest, Columbus, OH, Invited Talk

**Knotty Games & Unknotting Operations***August 2, 2016*

UnKnot Conference, Denison University, Invited Talk

**Be Inspirable***August 7, 2015*

Mathfest, Washington D.C., Alder Award Recipient Invited Address

**The Story of Pseudodiagrams and Knot Games***July 9, 2015*

University of Washington Bothell REU, Invited Talk

*May 12, 2011*

Western Washington University, Colloquium Talk

*April 27, 2011*

Pacific Lutheran University, Colloquium Talk

*March 22, 2011*

Claremont McKenna College, Invited Seminar Talk

*June 28, 2010*

University of Washington, Invited Math Club Talk

*February 8, 2010*

Willamette University, Colloquium Talk

*November 18, 2009*

Seattle University, Colloquium Talk

**Invariants of Pseudoknots: A Mathematical Autobiography***April 25, 2015*

Cascade Topology Seminar, Victoria, BC, Invited Talk

**Invariants of Pseudoknots***November 8, 2014*

AMS Sectional Meeting, Greensboro, NC, Invited Talk

**A Tale of Knots & Games***July 24, 2014*

USA/Canada Mathcamp, Portland, OR, Colloquium Talk

*April 27, 2014*

University of Washington, Monthly Math Hour, Invited Talk

*November 7, 2011*

University of South Alabama, Math Circle, Invited Talk

**What is a Pseudoknot?***April 4, 2014*

UC Fresno, Colloquium Talk

**Pseudoknots, Classical and Virtual***November 2, 2013*

AMS Sectional Meeting, Riverside, CA, Contributed Talk

**Oral Reviews in Calculus: Improving Student Understanding***April 13, 2013*

MAA Sectional Meeting, Salem, OR, Contributed Talk

*August 3, 2012*

Mathfest, Madison, WI, Contributed Talk

**Flipping Classes (or How We Can Encourage Students to Come to Class Prepared)***April 12, 2013*

MAA Sectional Meeting, Salem, OR, Invited Talk

**On the Discovery of Pseudoknots***March 7, 2013*

Dartmouth College, Colloquium Talk

**SERVICE**

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**Service to the Mathematics Community***Associate Editor-Elect of the College Mathematics Journal*

Spring 2018 – present

Elected to serve a four-year term on the editorial board of the MAA publication.

*Associate Editor of PRIMUS*

Fall 2015 – present

Serving on the editorial board for an indefinite period of time.

*Associate Editor of the Journal of Knot Theory and its Ramifications*

Winter 2015 – present

Serving on the editorial board for an indefinite period of time.

*Associate Editor of Mathematics Magazine*

Summer 2014 – present

Serving a four-year term on the editorial board of the MAA publication.

*Councilor for the Council on Undergraduate Research*

Summer 2014 – present

Currently serving a second three-year term as councilor and the Secretary of the Division of Mathematics and Computer Science in the national CUR organization. Also representing the division on the Diversity &amp; Inclusion Task Force.



- Referee and Reviewer* Fall 2010 – present  
Have served as referee/reviewer for *MathSciNet*, the NSA Mathematical Sciences Grant Program, the NSF Division of Mathematical Sciences, *Journal of Knot Theory and Its Ramifications*, *Journal of the Mathematical Society of Japan*, *Fundamenta Mathematicae*, *International Journal of Mathematics*, *Topology and Its Applications*, *Discrete Mathematics*, *Communications in Contemporary Mathematics*, *Experimental Mathematics*, *Mathematics Magazine*, *American Mathematical Monthly*, *College Mathematics Journal*, *Numeracy*, *PRIMUS*, *Involve*, and MCURCSM as well as various books, book chapters, and book proposals.
- MAA Committee on the Alder Award* Fall 2017 – present  
Serving a four year term on this MAA committee to determine Alder Award winners.
- 2018 PNW MAA Workshop Presenter* April 2018  
Presented in a math faculty training on how to be an undergraduate research mentor as a part of the Pacific Northwest MAA Sectional Meeting at Seattle University.
- 2018 MAA Trisection Meeting Panelist* March 2018  
Contributed to panel: “Encounters in Experiential Learning” at the MAA Trisection meeting in Valparaiso, IN.
- 2018 PNW MAA Section Meeting Planning Committee* Fall 2015 – Summer 2017  
Served on the planning committee for the MAA PNW Section Meeting to be hosted at Seattle U. in Spring 2018. Secured funding, invited plenary speakers, and corresponded with section leadership.
- 2018 AMS Special Session Organizer* Spring 2017 – Spring 2018  
Co-organized a special session entitled “Special Session on Algebraic and Combinatorial Structures in Knot Theory” for the 2018 AMS Spring Western Section Meeting in Portland, OR.
- 2018 JMM Special Session Organizer* Winter 2017 – Winter 2018  
Co-organized a special session entitled “Open & Accessible Problems for Undergraduate Research” for the 2018 Joint Mathematics Meetings in San Diego, CA.
- 2017 MathFest Project NExT Panelist* July 2017  
Contributed to panel: “Strategies to prepare for classes before the semester starts” at MathFest in Chicago, IL.
- 2017 JMM Project NExT Panelist* January 2017  
Contributed to panel: “The Research and Teaching Pendulum: Finding a Stable Equilibrium” at the Joint Mathematics Meetings in Atlanta, GA.
- 2017 JMM Joint Committee on Women Panelist* January 2017  
Contributed to panel: “From Calculus to a Bachelor’s Degree: Encouraging and Developing Undergraduate Math Majors” at the Joint Mathematics Meetings in Atlanta, GA.
- 2017 AMS Special Session Organizer* Summer 2016 – Spring 2017  
Co-organized a special session entitled “Combinatorial and Algebraic Structures in Knot Theory” for the 2017 AMS Spring Western Sectional Meeting in Pullman, WA.
- 2017 JMM Special Session Organizer* Winter 2016 – Winter 2017  
Co-organized a special session entitled “Open & Accessible Problems for Undergraduate Research” for the 2017 Joint Mathematics Meetings in Atlanta, GA.
- Fall 2016 Cascade Topology Seminar Guest Organizer* Fall 2015 – Fall 2016  
Organized the Fall 2016 Cascade Topology Seminar, held at Seattle University on November 19-20, 2017. Invited speakers, publicized event, and handled all local arrangements.
- MAA Social Media Task Force Member* Winter 2016 – Spring 2016  
Served as a member of the MAA Social Media Task Force to help determine the future direction of MAA’s engagement with social media.
- Dissertation Committee Member* Spring 2016  
Served as the external PhD dissertation committee member for Nic Petit at Dartmouth College.
- 2016 JMM Special Session Organizer* Winter 2015 – Winter 2016

Co-organized a special session entitled “Knots in Washington (State)” for the 2016 Joint Mathematics Meetings in Seattle, WA.

*2015 AMS Special Session Organizer* Winter 2015 – Fall 2015  
Co-organized a special session entitled “Algebraic and Combinatorial Structures in Knot Theory” for the 2015 AMS Fall Western Sectional Meeting in Fullerton, CA.

*Visiting Mathematician at Canada/USA Mathcamp* Summer 2014  
Served as a scholar-in-residence for one week for a camp for gifted high school students from the US and Canada. Co-taught a minicourse, and gave colloquium talk.

*PNW MAA Executive Committee* Spring 2013 – Spring 2014  
Served as Pacific Northwest section liaison to the Mathematical Association of America.

*2013 AMS Special Session Organizer* Winter 2013 – Fall 2013  
Co-organized a special session entitled “Algebraic Structures in Knot Theory” for the 2013 AMS Fall Western Sectional Meeting in Riverside, CA.

*2013 AMS Special Session Organizer* Fall 2012 – Fall 2013  
Co-organized a special session entitled “Algebraic and Combinatorial Invariants of Knots” for the 2013 AMS Fall Central Sectional Meeting in St. Louis, MO.

*MAA Sectional Meeting Organizer* April 2010  
Organized panel discussions on undergraduate research and outreach programs. Member of Seattle University faculty organizational committee.

*2009 Mathfest Project NExT Session Organizer* August 2009  
Organized panel discussion on math outreach and service-learning.

### **Service to Seattle University and the College of Science & Engineering**

*Peer Teaching Reviewer* Spring 2014 – Summer 2017  
Conducted nine formal peer teaching reviews for faculty members both within and outside of my department.

*Faculty Learning Community Facilitator* Fall 2016 – Winter 2017  
Facilitated a faculty learning community on Paul Silvia’s book “How to Write a Lot” for the Center for Faculty Development.

*Panelist on Undergraduate Research Panel* Fall 2016  
Panelist on panel devoted to the topic of undergraduate research for the Center for Faculty Development.

*S & E Grant Accounting Technician Hiring Committee* Spring 2016  
Served on a 3-person committee to hire our college’s new Grant Accounting Technician.

*Learning Assistance Programs Learning Strategy Workshops* Spring 2012 – Winter 2016  
Helped to develop and facilitate workshop entitled “How to study for and succeed in a math class.” Facilitated workshop 1-2 times each year.

*Panelist on Consortium of Interdisciplinary Scholars Panel* Spring 2015  
Panelist for “STEM + ART = STEAM: What might the sum look like at SU?”

*New Chair and Director Institute Planning Committee* Winter 2015 – Spring 2015  
Served on the planning committee for the second NCDI, a workshop that serves to prepare new chairs and directors at SU.

*Career Initiative Steering Committee* Spring 2013 – Summer 2013  
Served as a member of a university committee to design a proposal to improve job readiness and placement for SU graduates.

*Speaker for Dean’s Alumni Event* Spring 2013  
Spoke about innovations in math education at the event “Seattle University Conversations: Current Directions in STEM Education.”

*Core Revision Workshops and Course Proposals* Fall 2010 – Spring 2012

Participant in several workshops and focus groups to redesign the Core curriculum. Submitted several Core course proposals on behalf of the Math Department.

*SU Delegate for Western Conversations in Jesuit Higher Education* Fall 2011  
Member of a ten-person delegation representing SU at the conference.

*Seattle University Academic Assembly* Fall 2010 – Spring 2011  
Representative of the College of Science and Engineering. Served on Bylaws Revision Committee.

*Expanding Your Horizons Presenter* Spring 2011  
Gave a presentation with Dr. Robertson on plane tilings to groups of adolescent girls at the Seattle University EYH workshop.

*Math and Science in the Core Workshops* Fall 2010  
Participant in workshop to determine the role of math and science in the Core curriculum.

*Learning Outcomes Workshops* Winter 2010  
Participant in several workshops to help develop SU's new undergraduate learning outcomes.

### **Service to the Seattle University Mathematics Department**

*Chair of the Mathematics Department* Summer 2014 – Spring 2017  
Served a three-year term as chair with countless responsibilities.

*Undergraduate Research Advisor* Fall 2010 — Spring 2017  
Advised several undergraduate research projects for 12 SU students.

*Student Academic Advisor* Fall 2010 – Spring 2017  
Advisor to Seattle University undergraduate math majors.

*SMART Fridays* Winter 2016 – Spring 2017  
Launched and co-organized monthly event that serves as a forum for students to present their undergraduate research in math, applied math, or statistics.

*Math Department Bylaws Committee* Spring 2016 – Spring 2017  
Serving as chair of a committee to develop department bylaws.

*Math Department Assessment Committee* Fall 2014 – Spring 2017  
Serving on a three-person departmental committee to assess our department's curriculum.

*Math Department Senior Synthesis Redesign Committee* Winter 2015 – Winter 2016  
Served on a three-person departmental committee to dramatically redesign the senior synthesis experience for all math majors.

*Math Department Struggling Student Committee* Fall 2014 – Spring 2015  
Served on departmental committee to improve student success in upper-division courses.

*Math Department Undergraduate Research Committee* Fall 2012 – Summer 2014  
Served on departmental committee to obtain financial support for undergraduate research. Successfully obtained REU grant from the NSF.

*Math Lecturer Hiring Committee* Spring 2014  
Served on committee to hire two full-time sabbatical replacement lecturers for the SU Mathematics Department. Over 200 applications were received.

*Math Instructor Hiring Committee* Spring 2013  
Served on committee to hire two instructors for the SU Mathematics Department. Over 300 applications were received.

*Math Department Teas* Winter 2010 – Spring 2012  
Organized department teas for undergrads and faculty to promote department community.

*Seattle University Math Club Advisor* Fall 2009 – Spring 2011, Fall 2013  
Secondary advisor to the SU Math Club, helped to organize leadership and events.

*Math Department Actuary Committee* Winter 2010  
Member of Math Department subcommittee to research new program in Actuarial Sciences.

## PROFESSIONAL DEVELOPMENT

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- Regular attendee of workshops hosted by SU's Center for Faculty Development
- Attended PIC Math Data Analytics Workshop at Brigham Young University, May/June 2017
- Hosted and attended a 2-day workshop on Inquiry-Based Learning at SU, February 2015
- Seattle University Academic Service Learning Research Faculty Fellow 2013-14
- Attended the week-long MAA PREP Workshop on Inquiry-Based Learning, Summer 2013
- Participant in Nicaragua Immersion Trip, Summer 2012
- Seattle University Academic Service Learning Faculty Fellow 2010-11
- Fellow of the MAA's Project NExT professional development group, Red08 Dot
- Member of the Pacific Northwest section of Project NExT

## PROFESSIONAL AFFILIATIONS

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Council on Undergraduate Research (CUR)  
Mathematical Association of America (MAA)  
American Mathematical Society (AMS)  
Association for Women in Mathematics (AWM)