

Harrison E. Stalvey

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Research

Undergraduate mathematics education (RUME).

Education

- Aug 2014 **Ph.D. in Mathematics**, Georgia State University.
Dissertation: The teaching and learning of parametric functions: A baseline study.
Advisor: Dr. Draga Vidakovic.
- May 2010 **M.S. in Mathematics**, Georgia State University.
Thesis: Weak primary decomposition of modules over a commutative ring.
Advisor: Dr. Yongwei Yao.
- May 2010 **B.S. in Mathematics**, Georgia State University.

Professional Experience

- Aug 2019 – Present **Instructor**, *Department of Mathematics*, University of Colorado Boulder.
4-5 classes per semester (or 3-4 classes plus coordination per semester).
- Aug 2016 – Aug 2019 **Lecturer**, *Department of Mathematics*, University of Colorado Boulder.
4-5 classes per semester.
- Aug 2014 – Aug 2016 **Visiting Lecturer**, *Department of Mathematics & Statistics*, Georgia State University.
12 credit hours per semester.
- Aug 2009 – Aug 2014 **Graduate Teaching Assistant**, *Department of Mathematics & Statistics*, Georgia State University.
Principal instructor of record. Carried a minimum of 2 class per semester. Also assisted with piloting new textbooks.
- Fall 2011 **Graduate Research Assistant**, *Draga Vidakovic*, Georgia State University.
Transcribed video-recorded classroom discussions as part of a study on students' learning of linear algebra concepts.
- July 2010 **Instructor**, Early College Summer Enrichment Program, *College of Education*, Georgia State University.
Coordinator and instructor of the mathematics portion of a summer enrichment program designed to orient students who are in an accelerated high school program at Carver High School prior to their early enrollment in Georgia State University.
- Aug 2007 – Aug 2009 **Graduate Lab Assistant**, *Department of Mathematics & Statistics*, Georgia State University.
Conducted review sessions for students enrolled in College Algebra and Precalculus in the Mathematics Interactive Learning Environment (MILE), individually tutored students in the MILE, and assisted with MILE administrative duties.
- Aug 2007 – Aug 2009 **Graduate Assistant (Tutor)**, *Athletic Department*, Georgia State University.
Tutored mathematics to at-risk student athletes, some with documented learning disabilities. Promoted to Senior Tutor in August 2008.
- Aug 2004 – Aug 2007 **Student Assistant**, *Department of Mathematics & Statistics*, Georgia State University.
Tutored students enrolled in core-level mathematics courses in the Mathematics Assistance Complex (MAC). Temporary Employee during Summer 2007.

Administrative Experience

University of Colorado Boulder

- **Course Coordinator**, Calculus 3, *Department of Mathematics*.
Spring 2021, Fall 2020.
- **Course Coordinator**, Calculus 1, *Department of Mathematics*.
Summer 2020, Spring 2020, Fall 2019.
- **Course Coordinator**, Precalculus Supplemental Lab, *Department of Mathematics*.
Spring 2019, Fall 2018, Spring 2018.

Georgia State University

- **Course Co-coordinator**, Mathematics Education, *Department of Mathematics & Statistics*.
Spring 2016, Fall 2015, Spring 2015, Fall 2014.

Courses Taught

University of Colorado Boulder

1. **Calculus 3.**
Spring 2021, Fall 2020, Fall 2019, Spring 2019, Fall 2017.
2. **Mathematics Teacher Training.**
Spring 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019.
3. **Calculus 1.**
Summer 2020, Spring 2020, Fall 2019, Fall 2018, Spring 2018, Fall 2016.
4. **Introduction to Discrete Mathematics.**
Spring 2020, Spring 2017.
5. **Linear Algebra for Non-Math Majors.**
Summer 2019.
6. **Calculus 2.**
Summer 2019, Summer 2018.
7. **Precalculus Supplemental Lab.**
Spring 2019, Fall 2018, Spring 2018, Spring 2017.
8. **Precalculus.**
Fall 2018, Summer 2018, Spring 2018, Fall 2017, Summer 2017, Spring 2017, Fall 2016.

Georgia State University

1. **Multivariate Calculus.**
Summer 2016, Spring 2015.
2. **Calculus II.**
Spring 2016, Fall 2015, Spring 2015, Fall 2014, Spring 2014, Fall 2013, Spring 2013, Fall 2012, Summer 2012.
3. **Honors Calculus II.**
Spring 2016.
4. **College Trigonometry.**
Spring 2016.
5. **Calculus I.**
Fall 2015, Summer 2015, Fall 2014.
6. **Linear Algebra I.**
Summer 2015.
7. **College Geometry.**
Fall 2014.
8. **Algebraic Concepts.**
Summer 2013, Spring 2012, Fall 2011, Summer 2011, Spring 2011.
9. **Introduction to Mathematical Modeling**
Fall 2011, Summer 2011, Fall 2010, Spring 2010, Fall 2009.

Contract Work

- Jul 2020 – **Researcher**, SEMINAL Grant, *National Science Foundation*.
Present Student Engagement in Mathematics through an Institutional Network for Active Learning.
- Aug 2020 – **Technical Support**, *Department of Mathematics*, University of Colorado Boulder.
Dec 2020 Provided technical support and faculty training for using learning management systems during remote instruction.

Service

University of Colorado Boulder

- Aug 2018 – **Placement Coordinator**, Precalculus Supplemental Lab, *Department of Mathematics*.
Present
- Aug 2018 – **Mentoring Coordinator**, Mentoring Program for New Lecturers, *Department of Mathematics*.
Dec 2019

Georgia State University

- Mar 2016 – **Member**, SALT-UM Steering Committee, *Department of Mathematics & Statistics*.
Aug 2016 Seminar on Active Learning and Teaching in Undergraduate Mathematics.
- Sep 2015 – **Member**, Math & Stat Club Board of Advisors, *Department of Mathematics & Statistics*.
Aug 2016
- 2011 **Member**, Curriculum Development Committee for the Life Sciences Calculus Sequence, *Department of Mathematics & Statistics*.

Professional Development & Workshops

- 2020 **Participant**, Learning by Design Program, *ASSETT's Active Learning Academy*, University of Colorado Boulder, Fall Semester.
- Sep 2019 – **Participant**, New Faculty Development Program, *College of Arts and Sciences*, University of
Apr 2020 Colorado Boulder.
- 2019 **Participant**, TRESTLE Scholars, University of Colorado Boulder, Spring Semester.
Transforming Education, Supporting Teaching and Learning Excellence.
- 2018 **Co-organizer (with Tatjana Budimirovic)**, Lecturer Workshop on Active Learning, *Department of Mathematics*, University of Colorado Boulder, November 8.

Professional Affiliations

- Mathematical Association of America (MAA).
- Special Interest Group of Mathematical Association of America on Research in Undergraduate Mathematics Education (SIGMAA on RUME).

Honors and Awards

- 2011 **Best Teaching Assistant Award**, *Department of Mathematics & Statistics*, Georgia State University.
- 2010 **Best Teaching Assistant Award**, *Department of Mathematics & Statistics*, Georgia State University.

Scholarship

Peer-Reviewed Journal Articles

1. Stalvey, H. E., Burns-Childers, A., Chamberlain, D., Jr., Kemp, A., Meadows, L. J., & Vidakovic, D. (2019). Students' understanding of the concepts involved in one-sample hypothesis testing. *Journal of Mathematical Behavior*, 53, 42–64.
2. Stalvey, H. E., & Vidakovic, D. (2015). Students' reasoning about relationships between variables in a real-world problem. *Journal of Mathematical Behavior*, 40, 192–210.

Peer-Reviewed Conference Proceedings

1. Burns-Childers, A.*, Chamberlain, D., Jr., Kemp, A., Meadows, L., Stalvey, H.*, & Vidakovic, D. (2018). Reasoning about one population hypothesis testing: The case of Steve. In A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, & S. Brown (Eds.), *Proceedings of the 21st annual conference on Research in Undergraduate Mathematics Education* (pp. 703–710). San Diego, CA: SIGMAA on RUME.
2. Burns-Childers, A.*, Chamberlain, D., Jr., Kemp, A.*, Meadows, L.*, Stalvey, H., & Vidakovic, D. (2017). Students' understanding of test statistics in hypothesis testing. In A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, & S. Brown (Eds.), *Proceedings of the 20th annual conference on Research in Undergraduate Mathematics Education* (pp. 82–92). San Diego, CA: SIGMAA on RUME.
3. Stalvey, H. E.*, & Vidakovic, D. (2015). The generalization of the function schema: The case of parametric functions. In T. Fukawa-Connelly, N. Engelke Infante, K. Keene, & M. Zandieh (Eds.), *Proceedings of the 18th annual conference on Research in Undergraduate Mathematics Education* (pp. 953–959). Pittsburgh, PA: SIGMAA on RUME.

Conference & Seminar Presentations, Session Organization

1. Stalvey, H. E. (2019). Epistemology, Psychology, and the Concept of Function. *Math Club*, University of Colorado Boulder. Boulder CO, October 2.
2. Vidakovic, D., Stalvey, H., Chamberlain, D., Jr., Kemp, A., Meadows, L., & Kellam, A. (2018). Co-organizers of the special session on Active Learning in Undergraduate Mathematics, *2018 MAA spring southeastern sectional meeting*. Clemson, SC, March 23–24.
3. Vernerey, D., Machen, R.*, & Stalvey, H. E.* (2017). Developing an active learning environment in pre-calculus. Special session on Active Learning in Undergraduate Mathematics, *AMS spring southeastern sectional meeting*. Charleston, SC, March 10–12.
4. Vernerey, D., Stalvey, H., & Machen, R. (2017). A collaboration between faculty & student affairs: MATH 1151 Precalculus Supplemental Lab. *Advisor Day*, University of Colorado Boulder. Boulder, CO, February 14.
5. Vidakovic, D., Stalvey, H., Chamberlain, D., Jr., Kemp, A., & Meadows, L. (2017). Co-organizers of the special session on Active Learning in Undergraduate Mathematics, *AMS spring southeastern sectional meeting*. Charleston, SC, March 10–12.
6. Vidakovic, D., Stalvey, H., Chamberlain, D., Jr., Kemp, A., & Meadows, L. (2016). Co-organizers of the special session on Active Learning in Undergraduate Mathematics, *AMS spring southeastern sectional meeting*. Athens, GA, March 5–6.
7. Chamberlain, D., Jr.*, Kemp, A.*, Meadows, L.*, Stalvey, H., Vidakovic, D., Burns, A. (2016). The emporium model for elementary statistics: A preliminary report. Special session on Active Learning in Undergraduate Mathematics, *AMS spring southeastern sectional meeting*. Athens, GA, March 5–6.
8. Stalvey, H. E.*, & Vidakovic, D. (2016). Water coolers and parametrizations. MAA session on Research on the Teaching and Learning of Undergraduate Mathematics, *Joint Mathematics Meetings*. Seattle, WA, January 6–9.
9. Grinshpon, M., Brazas, J., Rizzo, R.*, Stalvey, H.*, & Wang, C.* (2015). Rethinking calculus: In search of new platforms, different approaches, and more interactivity. University System of Georgia STEM mini-grant results presentation, Georgia State University. Atlanta, GA, October 9.

10. Stalvey, H. E. (2015). Parametric functions: Second-semester calculus students' conceptions and misconceptions. Seminar presentation, School of Mathematical Sciences, University of Northern Colorado. Greeley, CO, January 27.
11. Stalvey, H. E.*, & Vidakovic, D. (2015). Students' reasoning when sketching graphs of plane curves defined parametrically. MAA session on Research on the Teaching and Learning of Undergraduate Mathematics, *Joint Mathematics Meetings*, San Antonio, TX, January 10–13.
12. Stalvey, H. E.*, Vidakovic, D., Montiel, M. (2014). Developing the notion of function between sets of equivalence classes from the APOS perspective. MAA session on Research on the Teaching and Learning of Undergraduate Mathematics, *Joint Mathematics Meetings*, Baltimore, MD, January 15–18.
13. Stalvey, H. E. (2012). Epistemology of mathematical concepts with particular reference to the concept of function and the notion of well-defined. *Mathematics graduate student miniconference*, Georgia State University. Atlanta, GA, March 30.
14. Stalvey, H. E. (2006). Introduction to trigonometry: Through the right-angled triangle or wrapping function? *Undergraduate RIMMES conference*, Georgia State University. Atlanta, GA, April 21. (Mentor: Dr. Draga Vidakovic)

Grants

1. Grinshpon, M., Chahine, I., Fanoë, A., & Stalvey, H. (2016). Incorporating “just in time” teaching to enhance the newly changed lecture/recitation format in calculus. *University System of Georgia STEM Mini-Grant*.
2. Grinshpon, M., Chahine, I., Fanoë, A., & Stalvey, H. (2016). Adapting to trig: Using the ALEKS adaptive technology to improve students' learning and retention in the college trigonometry course. *University System of Georgia STEM Mini-Grant*.
3. Grinshpon, M., Brazas, J., Rizzo, R., & Stalvey, H. (2015). Rethinking calculus: In search of new platforms, different approaches, and more interactivity. *University System of Georgia STEM Mini-Grant*.