

Jess Ellis Hagman

Curriculum Vitae

Colorado State University
Department of Mathematics
Weber 121
Fort Collins, CO 80523-1874

Assistant Professor
Mathematics Education
jess.ellis@colostate.edu

EDUCATION

September 2014 Ph.D. in Mathematics and Science Education, joint doctoral program
University of California San Diego & San Diego State University, San Diego, CA
June 2010 M.S. in Pure Mathematics
California Polytechnic University, San Luis Obispo, CA
June 2007 B.S. in Pure Mathematics
California Polytechnic University, San Luis Obispo, CA

EMPLOYMENT

2014 - Present Assistant Professor of Mathematics Education, Department of Mathematics,
Colorado State University, Fort Collins, CO

GRANTS

1. National Science Foundation Innovations in Undergraduate STEM Education, *MPWR 2016 and Beyond: Fostering sustainable networks for women in RUME*, J. (Hagman) Ellis (PI), S. Musgrave (Co-PI), M. Wawro (Senior Personnel), E. Thanheiser (Senior Personnel), \$199,992, DUE- 1553278
2. National Science Foundation Innovations in Undergraduate STEM Education, *Mentoring and Partnerships for Women in RUME II (MPWR II)*, J. (Hagman) Ellis (PI), M. Wawro, E. Thanheiser, S. Musgrave (Senior Personnel), \$49,986, DUE-1457785
3. National Science Foundation Innovations in Undergraduate STEM Education, *Pathways Through Calculus*, D. Bressoud (PI), L. Braddy (Co-PI), J. (Hagman) Ellis (Co-PI), S. Larsen (Co-PI), C. Rasmussen (Co-PI). \$2,225,000, DUE- 1430540
4. National Science Foundation Transforming Undergraduate Education in STEM, *Mentoring and Partnerships for Women in RUME (MPWR)*, M. Wawro (PI), J. (Hagman) Ellis and H. Soto-Johnson (Senior Personnel), \$44,148, DUE-1352990

PUBLICATIONS

Peer Reviewed Papers

1. Hagman, J.E., Johnson, E., & Fosdick, B. (2017). Factors Contributing to Experiencing a Lack of Time in College Calculus. *International Journal of STEM Education*, 4(12). DOI 10.1186/s40594-017-0070-7

2. Zandieh, M., (Hagman) Ellis, J., & Rasmussen, C. (2016). Student Concept Images of Function and Linear Transformation. *C. Educ Stud Math*. doi:10.1007/s10649-016-9737-0
3. (Hagman) Ellis, J., Fosdick, B.K., Rasmussen, C. (2016). Women 1.5 Times More Likely to Leave STEM Pipeline after Calculus Compared to Men: Lack of Mathematical Confidence a Potential Culprit. *PLoS ONE* 11(7): e0157447. doi:10.1371/journal.pone.0157447
4. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C. (2015). It's About Time: The Relationships between Coverage and Instructional Practices in College Calculus. *International Journal of Mathematical Education in Science and Technology*, 1-14.
5. (Hagman) Ellis, J., Hanson, K., Nuñez, G., & Rasmussen, R. (2015). Beyond Plug and Chug: an Analysis of Calculus I Homework. *International Journal of Research in Undergraduate Mathematics Education*. DOI 10.1007/s40753-015-0012-z
6. (Hagman) Ellis, J., Kelton, M., & Rasmussen, C. (2014). Student perception of pedagogy and persistence in calculus. *ZDM*. 46 (4)., pp. 661-673.

Preprint/Under Review

1. (Hagman) Ellis, J. (under review). Learning to think, talk, and act like an instructor: Framework for college mathematics instructor development. *Journal for Mathematics Teacher Education*.

Academic Magazine or Newsletter

1. Rasmussen, C. & (Hagman) Ellis, J. (February, 2016). Calculus Coordination: A factor for success. *MAA Focus*., pp. 28-30.
2. Wawro, M., (Hagman) Ellis, J., & Soto-Johnson, H. (September, 2014). MPWR: Mentoring and Partnerships for Women in RUME. *American Women in Mathematics (AWM) Newsletter*.

Book Chapters

1. Rasmussen, C., & (Hagman) Ellis, J. (2015). Calculus coordination at PhD-granting universities: More than just using the same syllabus, textbook, and final exam. In D. Bressoud, V. Mesa, and C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus*. *MAA Notes* (pp 109-117). Washington, DC: Mathematical Association of America.
2. (Hagman) Ellis, J. (2015). Professional Development of Graduate Students Involved in the Teaching of Calculus I. D. Bressoud, V. Mesa, and C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus*. *MAA Notes* (pp 121-128). Washington, DC: Mathematical Association of America.

Refereed Conference Proceedings

1. (Hagman) Ellis, J., Deshler, J., & Speer, N. (2016). Supporting institutional change: A two-pronged approach related to graduate teaching assistant professional development. *Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 729-736). Pittsburgh, PA.

2. (Hagman) Ellis, J., Deshler, J., & Speer, N. (2016). How do mathematics departments evaluate their graduate teaching assistant professional development programs? *Proceedings of the 40th Conference of the International Group for the Psychology of Mathematics Education*, Szeged, Hungary (pp. 227-234).
3. (Hagman) Ellis, J., Johnson, E., Fosdick, B. (2016). Feeling the Squeeze: Factors Contributing to Experiencing a Lack of Time in College Calculus. In Wood, M. B., Turner, E. E., Civil, M., & Eli, J. A. (Eds.). (2016). *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Tucson, AZ: The University of Arizona. (pp. 1317-1321).
4. Rasmussen, C., (Hagman) Ellis, J., & Bressoud, D. (2015). Who are the students who switch out of calculus and why? *Proceedings of the KSME 2015 International Conference on Mathematics Education*, Seoul, Korea.
5. (Hagman) Ellis, J., Hanson, K., Nuñez, G., & Rasmussen, R. (2015). Beyond Plug and Chug: an Analysis of Calculus I Homework. *Proceedings of the 18th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 486-495). Pittsburgh, PA.
6. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C. (2015). It's About Time: How Instructors And Students Experience Time Constraints In Calculus I. *Proceedings of the 18th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 477-486). Pittsburgh, PA.
7. (Hagman) Ellis, J. (2014). Preparing Future Professors: Highlighting The Importance Of Graduate Student Professional Development Programs In Calculus Instruction. *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 3 (pp. 9-16). Vancouver, British Columbia: PME.
8. Rasmussen, C., (Hagman) Ellis, J., Zazkis, D., & Bressoud., D. (2014). Features Of Successful Calculus Programs At Five Doctoral Degree Granting Institutions. In Oesterle, S., Liljedahl, P., Nicol, C., & Allan, D. (Eds.). *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 5 (pp. 33-40). Vancouver, British Columbia: PME.
9. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C. (2014). It's About Time: How Instructors And Students Experience Time Constraints In Calculus I. In Oesterle, S., Liljedahl, P., Nicol, C., & Allan, D. (Eds.). *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 6 (pp. 119-120). Vancouver, British Columbia: PME.
10. (Hagman) Ellis, J. (2014). Graduate students Teaching Assistants' (GTAs') beliefs, instructional practices, and student success. *Proceedings of the 17th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 609-616). Denver, CO.
11. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C. (2014). How to Make Time: The Relationships between Concerns about Coverage, Material Covered, Instructional Practices, and Student Success in College Calculus. *Proceedings of the 17th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 722-730). Denver, CO.
12. Rasmussen, C., (Hagman) Ellis, J., & Zazkis, D. (2014). Lessons Learned from Case Studies of Successful Calculus Programs at Five Doctoral Degree Granting Institutions. *Proceedings of the 17th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 999-1005). Denver, CO.

13. Nunez, G., Hanson, K, & (Hagman) Ellis, J. (2014). Beyond Plug And Chug: The Nature Of Calculus Homework At Doctoral Institutions. *Proceedings of the 17th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 971-974). Denver, CO.
14. Rasmussen, C., & (Hagman) Ellis, J. (2013). Who is switching out of calculus and why? In Lindmeier, A. M. & Heinze, A. (Eds.). *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 4 (pp. 73-80). Kiel, Germany: PME.
15. Uysal, F., (Hagman) Ellis, J., & Rasmussen, C. (2013). What do college calculus students believe about mathematics? *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education*, Kiel, Germany.
16. (Hagman) Ellis J, Rasmussen, C, Duncan, K. (2013). Switcher and Persister experiences in Calculus I. (Eds.) S. Brown, G. Karakok, K.H. Roh, and M. Oehrtman, *Proceedings of the 16th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 1-7). Denver, CO.
17. (Hagman) Ellis, J., Henderson, F., Rasmussen, C., & Zandieh, M. (2012). Student reasoning about linear transformations. In (Eds.) S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman, *Proceedings of the 15th Annual Conference on Research in Undergraduate Mathematics Education*, (pp. 413-421). Portland, OR.
18. Zandieh, M., (Hagman) Ellis, J., & Rasmussen, C. (2012). Student concept images of function and linear transformation. In (Eds.) S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman, *Proceedings of the 15th Conference on Research in Undergraduate Mathematics Education*, (pp. 320-329). Portland, OR.
19. Carlson, M., Rasmussen, C., Bressoud, D., Pearson M., Jacobs, S., (Hagman) Ellis, J., & Weber, E. (2011). Surveying mathematics departments to identify characteristics of successful programs in college Calculus. In (Eds.) S. Brown, S. Larsen, K. Marrongelle, and M. Oehrtman, *Proceedings of the 14th Annual Conference on Research in Undergraduate Mathematics Education* (pp. 33-39). Portland, OR.

RESEARCH PRESENTATIONS AND POSTERS (Presenter underlined) (*Work with student)

Invited Presentations

1. (Hagman) Ellis, J. (2017, April). An Overview of Two National Studies on College Calculus. Keynote speaker for the Wyoming Mathematics Institute. Casper, WY.
2. (Hagman) Ellis, J. & Deshler, J. (2017, April). Findings from national survey. Invited presentation for the NSF Workshop on Preparing Mathematics Graduate Students. National Science Foundation, Arlington, VA.
3. (Hagman) Ellis, J. (2017, January). Panel on Insights from MAA studies of College Algebra, Precalculus, and Calculus, Joint Mathematics Meeting, Atlanta, GA.
4. *(Hagman) Ellis, J., Gehrtz, J., & Bragdon, D. (2017, January). Session on *Mathematics GTA PD: Where we are and where we are going*. Joint Mathematics Meeting, Atlanta, GA.
5. (Hagman) Ellis, J. & Braddy, L. (2015, April). Characteristics of Successful Calculus Programs and PIC Math. Poster presented to the Coalition for National Science Foundation (CNSF), Washington, DC.

6. (Hagman) Ellis, J., (2015, February). Features Of Successful Calculus Programs At Five Doctoral Degree Granting Institutions. Invited presentation for the Front Range Math Education Seminar (FRaMES), Denver, CO.
7. (Hagman) Ellis, J., (2014, November). Characteristics of Successful Programs in College Calculus. Invited Keynote presentation during the Research Session of the AMATYC conference, Nashville, TN.
8. Zandieh, M., (Hagman) Ellis, J., & Rasmussen, C. (2013, January). Student concept images of function and linear transformation. Invited presentation at the 2013 Joint Mathematics Meeting, San Diego, CA.

Department Colloquia and Seminars

1. (Hagman) Ellis, J. (2017, April). The features of college calculus programs: An overview of the MAA two calculus projects' main findings. Invited speaker for the Department of Applied Mathematics and Statistics (AMS) Colloquium at Colorado School of Mines, Golden, CO.
2. (Hagman) Ellis, J. (2017, March). An Overview of the MAA's Calculus Projects' Main Findings. Invited speaker for the Fisk Distinguished Speaker Series, University of Wyoming, Laramie, WY.
3. (Hagman) Ellis, J., (2016, March). The Role of Calculus in the STEM "Gender Filter". Invited colloquium for the Department of Mathematics, University of Oklahoma, Norman, OK.
4. (Hagman) Ellis, J., (2016, March). The Role of Calculus in the STEM "Gender Filter". Invited colloquium for the Department of Mathematics, University of Arkansas, Fayetteville, AK.
5. (Hagman) Ellis, J., (2016, March). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, University of Arkansas, Fayetteville, AK.
6. (Hagman) Ellis, J., (2015, December). The Role of Calculus in the STEM "Gender Filter". Invited colloquium for the Department of Mathematics, Montana State University, Bozeman, MT.
7. (Hagman) Ellis, J., (2015, November). Teaching Undergraduate Mathematics with the Common Core in Mind. Discussion leader for the teacher presentation at Colorado State University Math Day, Fort Collins, CO.
8. (Hagman) Ellis, J., (2015, October). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, Metropolitan State University, Denver, CO.
9. (Hagman) Ellis, J., (2015, May). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, Oregon State University, Corvallis, OR.
10. (Hagman) Ellis, J., (2015, May). Supporting Graduate Students as Innovative Instructors. Invited colloquium for the STEM Center, Oregon State University, Corvallis, OR.
11. (Hagman) Ellis, J., (2015, May). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, California Polytechnic University, San Luis Obispo, CA.

12. (Hagman) Ellis, J., (2015, April). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, Ohio State University, Columbus, OH.
13. (Hagman) Ellis, J., (2015, April). The features of successful college calculus programs: An overview of the CSPCC project's main findings. Invited colloquium for the Department of Mathematics, University of Wyoming, Laramie, WY.
14. (Hagman) Ellis, J., (2014, January). Preparing Future College Instructors: The Role of Graduate Student Teaching Assistants (GTAs) in Successful College Calculus Programs. Invited colloquium for the Department of Mathematics, Portland State University, Portland, OR.
15. (Hagman) Ellis, J., (2014, January). Preparing Future College Instructors: The Role of Graduate Student Teaching Assistants (GTAs) in Successful College Calculus Programs. Invited colloquium for the Department of Mathematics, Colorado State University, Fort Collins, CO.
16. (Hagman) Ellis, J., (2013, December). Preparing Future College Instructors: The Role of Graduate Student Teaching Assistants (GTAs) in Successful College Calculus Programs. Invited colloquium for the Department of Mathematics, Montclair State University, Montclair, NJ.
17. (Hagman) Ellis, J. (2013, October). Students who switch out of calculus and their perceptions of pedagogy. Invited colloquium for the Department of Mathematics and Statistics, California State Polytechnic University, Pomona, CA.
18. (Hagman) Ellis, J. (2013, October). Student Perceptions of Pedagogy and Persistence in Calculus. Invited seminar talk for the Department of Mathematics and Statistics, California State University, San Diego, CA.

Conference Presentations and Posters (refereed proposals with extended abstracts)

3. *(Hagman) Ellis, J., Bragdon, D., & Gehertz, J. (2017, February). Interaction, activities, and feedback: A taxonomy of GTA Professional Development. Paper presented at the 20th Annual Conference on Research in Undergraduate Mathematics Education, San Diego, CA.
4. (Hagman) Ellis, J., Musgrave, S., Melhuish, K., Thanheiser, E., & Wawro, M. (2017, February). Empowered Women In RUME: What Have We Been Up To? Poster presented at the 20th Annual Conference on Research in Undergraduate Mathematics Education, San Diego, CA.
5. Speer, N., (Hagman) Ellis, J., & Deshler, J. (2017, February). Evaluation of Graduate Student Professional Development and Instruction by Mathematics Departments: Results from a National Survey. Paper presented at the 20th Annual Conference on Research in Undergraduate Mathematics Education, San Diego, CA.
6. *Gehertz, J., Sampera, R., & (Hagman) Ellis, J. (2017, February). Equity Issues That (May) Arise in Active Learning Classrooms. Poster presented at the 20th Annual Conference on Research in Undergraduate Mathematics Education, San Diego, CA.
7. (Hagman) Ellis, J., Johnson, E, Fosdick, B. (2016, November). Feeling the Squeeze: Factors Contributing to Experiencing a Lack of Time in College Calculus. Paper presented at the 38th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ.

8. (Hagman) Ellis, J., Deshler, J., & Speer, N. (2016, August). How do mathematics departments evaluate their graduate teaching assistant professional development programs? Paper presented at the 40th Conference of the International Group for the Psychology of Mathematics Education, Szeged, Hungary.
9. Rasmussen, C., & (Hagman) Ellis, J., (2016, July). Results of the U.S. national study of calculus. Poster presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.
10. (Hagman) Ellis, J., Deshler, J., & Speer, N. (2016, February). Supporting institutional change: A two-pronged approach related to graduate teaching assistant professional development. Paper presented at the 19th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.
11. (Hagman) Ellis, J. (2016, February). Learning to think, talk, and act like a professor. Paper presented at the 19th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.
12. (Hagman) Ellis, J., & Cooper, R. (2016, February). Gender, switching, and student perceptions of Calculus I. Paper presented at the 19th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.
13. Rasmussen, C., Apkarian, N., Bressoud, D., (Hagman) Ellis, J., Johnson, J., & Larsen, S.(2016, February). A national investigation of Precalculus through Calculus 2. Paper presented at the 19th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.
14. (Hagman) Ellis, J., Speer, N., & Bookman, J. (2016, January). Preparing our future colleagues: A report on the national landscape of graduate student instructor professional development programs. Presentation at the 2016 Joint Mathematics Meeting, Seattle, WA.
15. (Hagman) Ellis, J., & Cooper, R. (2016, January). Gender, switching, and student perceptions of Calculus I. Presentation at the 2016 Joint Mathematics Meeting, Seattle, WA.
16. Bressoud, D., (Hagman) Ellis, J., Larsen, S., & Rasmussen, C. (2016, January). Progress through Calculus. Poster at the MAA Poster Session on Projects Supported by the NSF Division of Undergraduate Education at the 2016 Joint Mathematics Meeting, Seattle, WA.
17. (Hagman) Ellis, J., (2016, January). MPWR II: Mentoring and Partnerships for Women in RUME. Poster at the MAA Poster Session on Projects Supported by the NSF Division of Undergraduate Education at the 2016 Joint Mathematics Meeting, Seattle, WA.
18. (Hagman) Ellis, J. (2015, April). Supporting Graduate Students as Innovative Instructors. Paper presented at the 2015 Annual meeting of the American Education Research Association, Chicago, IL.
19. (Hagman) Ellis, J., Hanson, K., Nuñez, G., & Rasmussen, C., (2015, February). The Structure, Content, and Feedback of Calculus I Homework at Doctoral Degree Granting Institutions and the Role of Homework in Students' Mathematical Success. Paper presented at the 18th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.
20. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C., (2015, February). It's About Time: How instructors and students experience time constraints in Calculus I. Paper presented at the 18th Annual Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA.

21. (Hagman) Ellis, J. (2014, November). Lesson Study as a Tool for Preparing Graduate Students as Future Faculty. Paper presented at the 10th Annual Conference on the World Association of Lesson Study (WALS). Bandung, Indonesia.
22. Rasmussen, C., & (Hagman) Ellis, J. (2014, October). Features Of Successful Calculus Programs At Five Doctoral Degree Granting Institutions. Paper presented at the Transforming Institutions: 21st Century Undergraduate STEM Education Conference, Indianapolis, IN.
23. (Hagman) Ellis, J. (2014, July). Preparing Future Professors: Highlighting The Importance Of Graduate Student Professional Development Programs In Calculus Instruction. Paper presented at the 38th Conference of the International Group for the Psychology of Mathematics Education, Vancouver, British Columbia.
24. Rasmussen, C., (Hagman) Ellis, J., Zazkis, D., & Bressoud., D. (2014, July). Features Of Successful Calculus Programs At Five Doctoral Degree Granting Institutions. Paper presented at the 38th Conference of the International Group for the Psychology of Mathematics Education, Vancouver, British Columbia.
25. Johnson, E., (Hagman) Ellis, J., & Rasmussen, C. (2014, July). It's About Time: How Instructors And Students Experience Time Constraints In Calculus I. Paper presented at the 38th Conference of the International Group for the Psychology of Mathematics Education, Vancouver, British Columbia.
26. Wawro, M., (Hagman) Ellis, J., Soto-Johnson, H. (2014, August). MPWR: Mentoring and Partnerships for Women in RUME. Paper presented at the Mathematical Association of America's (MAA) MathFest, Portland, OR.
27. (Hagman) Ellis, J. (2014, February). Graduate students Teaching Assistants' (GTAs') beliefs, instructional practices, and student success. Paper presented at the 17th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
28. Rasmussen, C., (Hagman) Ellis, J., Zazkis, D. (2014, February). Lessons Learned from Case Studies of Successful Calculus Programs at Five Doctoral Degree Granting Institutions. Paper presented at the 17th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
29. Hanson, K., Nunez, G., (Hagman) Ellis, J. (2014, February). Beyond Plug and Chug: The nature of calculus homework at doctoral institutions. Poster presented at the 17th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
30. (Hagman) Ellis, J. (2013, November). Highlighting the Importance of Graduate Student Professional Development Programs in STEM Education. Poster presented at the Association of American Colleges and Universities (AAC&U) Conference for Transforming STEM Education: Inquiry, Innovation, Inclusion, and Evidence, San Diego, CA.
31. Rasmussen, C. & (Hagman) Ellis, J. (2013, November). Who is switching out of calculus and why? Paper presented at the 35th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Chicago, IL.
32. Rasmussen, C. & (Hagman) Ellis, J. (2013, July). Who is switching out of calculus and why? Paper presented at the 37rd Conference of the International Group for the Psychology of Mathematics Education, Kiel, Germany.

33. Uysal, F., (Hagman) Ellis, J., & Rasmussen, C. (2013, July). What do college calculus students believe about mathematics? Paper presented at the 37th Conference of the International Group for the Psychology of Mathematics Education, Kiel, Germany.
34. (Hagman) Ellis, J. (2013, June). Highlighting the Importance of Graduate Student Professional Development Programs in STEM Education. Poster presented at the 1st Annual Working Conference on Preparing Graduate Students to Teach Undergraduate Mathematics, Cambridge, MA.
35. Rasmussen, C., (Hagman) Ellis, J., Duncan, K., Bressoud, D., & Carlson, M. (2013, May). Who are the students that switch out of Calculus, and why? Presentation at the 2013 Annual meeting of the American Education Research Association, San Francisco, CA.
36. Zandieh, M., (Hagman) Ellis, J., & Rasmussen, C. (2013, February). Students Reconciling Notions of One-to-One Across Two Contexts. Paper presented at the 16th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
37. (Hagman) Ellis, J., & Rasmussen, C. (2013, February). Switcher and Persister Experiences in Calculus I. Paper presented at the 16th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
38. (Hagman) Ellis, J., Rasmussen, C., Duncan, K. (2013, February). Students' differing experiences in Calculus I. Paper presented at the 16th Annual Conference on Research in Undergraduate Mathematics Education, Denver, CO.
39. (Hagman) Ellis, J., & Rasmussen, C. (2013, January). Students' Differing Experiences in Calculus I. Presentation at the 2013 Joint Mathematics Meeting, San Diego, CA.
40. (Hagman) Ellis, J. (2012, June). Students' perceptions of pedagogy and the relation to persistence. Poster presented at the Second Conference on Transforming Research in Undergraduate STEM Education, St. Paul, MN.
41. (Hagman) Ellis, J. (2012, March). A Report on a National Study of College Calculus: Who is Switching out of STEM and Why? Presentation at the Student Research Symposium at San Diego State University, San Diego, CA.
42. (Hagman) Ellis, J., Henderson, F., Rasmussen, C., & Zandieh, M. (2012, February). Student reasoning about linear transformations. Paper and poster presented at the 15th Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.
43. Zandieh, M., (Hagman) Ellis, J., & Rasmussen, C. (2012, February). Student concept images of function and linear transformation. Paper presented at the 15th Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.
44. (Hagman) Ellis, J. (2012, February). Students' perceptions of pedagogy and the relation to persistence. Poster presented at the 15th Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.
45. (Hagman) Ellis, J. (2012, January). Student reasoning about linear transformations. Poster presented at the Judy Sowder Tribute, San Diego, CA.
46. Carlson, M., Rasmussen, C., Bressoud, D., Pearson M., Jacobs, S., (Hagman) Ellis, J., & Weber, E. (2011, February). Surveying mathematics departments to identify characteristics of successful programs in college Calculus. Paper presented at the 14th Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.

PUBLIC OUTREACH AND MEDIA COVERAGE

TEDx talk at Colorado School of Mines: <https://www.youtube.com/watch?v=GNQcKRhKE0Y>

The Huffington Post, "This Popular Math Class Is At The Heart Of The STEM Gender Gap, Study Suggests" by Dominique Mosbergen; August 4, 2016

Vocativ, "The Math Problem Diverting Women Out Of STEM Careers" by Allee Manning; August 2, 2016

Science Careers, "Low math confidence discourages female students from pursuing STEM disciplines" by Maggie Kuo; July 22, 2016

U.S. News, "Calculus Steers Women Away From STEM" by Lauren Camera; July 21, 2016

Arizona Public Media, "Study: College Calculus Deters Women from STEM fields" by Melissa Seignu; July 18, 2018

Washington Post, "Calculus apprehensions may steer women away from science careers" by Rachel Feltman; July 14, 2016

Denver Business Journal, "Why do women students drop out of STEM majors? New study pinpoints a culprit" by Caitlin Hendee; July 14, 2016

Source, "Calculus I factors women out of STEM degrees, researchers find" by Katie Courage; July 13

Arkansas Online, "Calculus class kicking women off career path, expert says" by Jaime Adame; April 3, 2016

CONSULTING

The Ohio State University Calculus Redesign, 2015-2017

TEACHING

Courses taught at Colorado State University:

Math 366 Introduction to Abstract Algebra	F16
Math 470 Euclidean and Non-Euclidean Geometry	S15, S16
Math 230 Discrete Mathematics for Educators	F14, F15, F16

ADVISING

Advisor

Jessica Gehrtz (PhD Mathematics Education, In Progress)
 Ben Wood (Undergraduate Honors Thesis, 2016)
 Joy Robinson (Undergraduate Honors Thesis, 2016)

Committee Member

Gaye DiGregorio (PhD Education, In Progress)
 Bettina Younge (MS Statistics, 2016)

Undergraduate Advising

Luke Read (Mathematics Education)
 Vanessa Healey (Mathematics)
 Anahi Leon-duarte (Applied Mathematics)
 Jenna Anderson (Mathematics Education)
 Sandy Gallippo (Mathematics)
 Michelle Moran (Mathematics Education)
 Alanna Pipkin (Mathematics Education)
 Matt Beirne (Mathematics)

SERVICE

Department and University

Executive Committee member for the Mathematics Department, 2016-2017

Search Committee for Mathematics Education Post-Doctoral fellow position in the Department of Mathematics, Colorado State University (2017)

Department representative, secretary (2015-2016), and Vice Chair (2016-2017) of the Rocky Mountain Mathematics Consortium (RMMC)

Mentor for Expanding Your Horizons (EYH, 2016), a workshop for middle school girls interested in STEM

Search Committee for the Special Faculty Position in the Department of Mathematics, Colorado State University (2016)

Committee for the Online Masters in Mathematics with an emphasis in Education in the Department of Mathematics, Colorado State University (2016)

Co-Founder and Organizer of the Front Range Mathematics Education Seminar (FRaMES) (2015), hosted at CU Denver (3 times) and Colorado State University, Fort Collins (once)

National

Co-Founder and Organizer of Mentoring and Partnerships for Women in RUME (MPWR) 2014, 2015, 2016, 2017, held in Denver CO (2014), Pittsburgh, PA (2015 and 2016), and San Diego, CA (2017)

Facilitator at the Academy of Inquiry Based Learning Workshop at CU Boulder, CO (2016) and San Luis Obispo, CA (2017); a workshop for mathematics faculty and instructors on active teaching in mathematics

Program Committee member for the Conference on Research in Undergraduate Mathematics Education, 2015 - present

Reviewer for NSF IUSE panel (March, 2017)

Reviewer for journals (Mathematical Thinking and Learning (MTL), Journal of Mathematics Teacher Education (JMTE), Research in Mathematics Education (RME), Educational Studies in Mathematics (ESM), International Journal for Research in Undergraduate Mathematics Education (IJRUME), Journal for Research in Mathematics Education (JRME), ZDM: The International Journal of Mathematics Education)

Reviewer for conferences (38th Conference of the North American Group for the Psychology of Mathematics Education, Tucson, AZ; Eighteenth Conference on Research in Undergraduate Mathematics Education, Pittsburgh, PA; Seventeenth Conference on Research in Undergraduate Mathematics Education, Denver, CO; Sixteenth Conference on Research in Undergraduate Mathematics Education, Denver, CO; 37th Conference of the North American Group for the Psychology of Mathematics Education, Chicago, IL)

Contributor to the MAA Instructional Practice Guide

PROFESSIONAL MEMBERSHIPS

AWM – Association for Women in Mathematics, 2014 - Present

MAA – Mathematical Association of America, 2010 - Present

RUME – SIGMAA on Research in Undergraduate Mathematics Education, 2010 - Present

AMTE – Association of Mathematics Teacher Educators, 2014 - 2015

NCTM – National Council of Teachers of Mathematics, 2014 - Present

CCTM – Colorado Council of Teachers of Mathematics, 2014 – Present

NAM – National Association of Mathematicians, 2017 - present

OTHER

Editorial Board Member, American Mathematical Society (AMS) blog on teaching and learning, 2016 - Present

Faculty Institute for Inclusive Excellence at CSU, Spring 2017

TIMES (Teaching Inquiry Materials: Establishing Supports) Fellow, 2016

STaR (Service, Teaching, and Research) Fellow, 2015