# Sean P. Yee, Ph.D.

## VITA

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## **CURRENT POSITION**

Associate Professor of Mathematics Education at the University of South Carolina (USC), Columbia. Co-Director of the Center for Science Education

## **EDUCATIONAL BACKGROUND**

- 2012 Ph.D. in Mathematics Education, Kent State University (Kent, OH)
- 2006 Licensed Mathematics Teacher in the State of Ohio grades 7-12
- 2006 Masters in Mathematics Education, Ohio State University (Columbus, OH)
- 2005 Doctoral Work in Mathematics, University of Notre Dame (Southbend, IN)
- 2004 Masters of Science in Mathematics, Ohio State University (Columbus, OH)
- 2001 Bachelor of Science in Mathematics, Ohio State University (Columbus, OH)

## PROFESSIONAL EXPERIENCE

- 2022-Present Co-Director of Center for Science Education
- 2019-Present Associate Professor Joint Position with Department of Mathematics within the College of Arts (CAS) and Sciences and the Department of Teacher Education within the College of Education (COE) at the University of South Carolina
- 2014-2019 Assistant Professor Joint Position at the University of South Carolina
- 2012-2014 Assistant Professor in Mathematics Education at California State University, Fullerton
- 2008-2012 Cleveland State University Part-Time Faculty
- 2006-2012 Full-Time Mathematics Teacher (Grades 9-12) at Solon High School
- 2005-2006 Student Teaching in Secondary Schools (Grades 6-12) through the Ohio State University
- 2002-2006 Lecturer and Instructor for the Ohio State University
- 1999-2001 Recitation Instructor, Teaching Assistant, and Tutor for the Ohio State University

## EXPERTISE

- Teaching Mathematics, Mathematics Education, and STEM Education Classes to Undergraduate and Graduate Students.
- Co-Director for Center for Science Education (CSE): Responsible for Running County Science and Engineering Fair (SEF), Junior Science and Humanities Symposium, and Hiring and Supervising Undergraduates, Graduates, and Professors for the CSE.
- Research in STEM Graduate Student Instructor (GSI) Equitable and Effective Pedagogy through Professional Development and GSI Peer-Mentoring.
- Research in Mathematical Metaphorical Conceptualization to Improve Teacher Education
- Research in Proof and Problem Solving within Collegiate and Secondary Education

## **TEACHING EXPERIENCE**

2022-Present Provide Professional Development (PD) for Professional Track Faculty

- 2019-Present Teach Dissertation in Practice Principles of Action Research I & II for the STEM EdD program
- 2016-Present Created, implemented, researched, taught, and sustain the <u>peer-mentor professional</u> <u>development</u> (mentor PD) for experienced GSIs to learn how to mentor novice GSIs

2015-Present	Serve(d) as Lead Advisor or on Doctoral Committees for 5 PhDs in Teacher Education in
	COE, 14 STEM EdDs in COE, 2 external PhDs (one in USA and one in Philippines, and
	Honors Thesis Advisor for 3 USC Undergraduates.
2015-Present	Created and taught new GSI 3-day orientation workshop
2014-Present	Developed, created, and taught new Mathematics Pedagogy I & II (MATH 791-792).
2014-Present	Taught at USC Practicum Seminar for Graduate Teaching Assistants, Advanced Doctoral
	Mathematics and Mathematics Education Research, Mathematics Pedagogy I & II,
	Introduction to Proof, Elementary Teacher Mathematical Content, Calculus 1, Calculus 2,
	Vector Calculus, and Differential Equations
2012-2014	Teaching at California State University, Fullerton: Capstone Mathematics Course for
	Secondary School, Mathematics Course for Elementary Teachers, Supervising Student
	Teachers in the Secondary Classroom, and Teaching Action Research Course for
	Graduate Students.
2008-2012	Cleveland State Post-Secondary Enrollment Options Program (PSEOP): Multivariable
	Calculus, Differential Equations, and Linear Algebra.
2006-2012	Solon High School: Algebra 2, Honors Algebra 2, Geometry, Honors Geometry,
	Accelerated Pre-Calculus, Accelerated Algebra 2, Honors Algebra 2, and Multivariable
	Calculus, Differential Equations, and Linear Algebra.
2005-2007	Student Teaching through Ohio State University, Grades 6, 8, 9, 10, 11, & 12
2002-2006	Ohio State University: Collegiate Algebra, Accelerated Collegiate Algebra, Pre-calculus,
	Basic Calculus Sequences, Integrated Calculus, Advanced Calculus for Engineers, and
	Multivariable Calculus.

## **BIOGRAPHY**

I am an Associate Professor of Mathematics Education at the University of South Carolina (USC) and the Co-director of the Center for Science Education. I have taught secondary school mathematics for eight years and trained preservice teachers in Ohio and California before joining USC to focus on pedagogy courses for mathematics graduate student instructors. My research on mentoring, induction, and professional development (PD) for college mathematics instructors emphasizes generating communities of practice around student-centered instructional methods such as active-learning strategies. My research also includes problem solving, problem posing, conceptual metaphor theory, mathematical proof education, and graduate student instructor pedagogical education. My national proceedings, publications, and external funding have focused on PD for novice STEM educators, established for the purpose of equitable access to effective, evidence-based teaching practices.

I enjoy Argentine tango, tap dancing, chess, volleyball, and spending time with my wife and two sons.

### **FELLOWSHIPS**

- 2018 McCausland Faculty Fellowship, University of South Carolina, College of Arts and Sciences
  2013 Service, Teaching, and Research (STaR) Early Career Doctoral Fellowship, Association of Mathematics Teacher Educators (AMTE)
- 2012-2013 Fund My Research Fellowship for Grant Writing, California State University, Fullerton

## GRANTS

#### Pending

1. Yee, S.P., Rogers, K., Churukian, A., Hanasono, L. (PI: 2025-2040). *Establishing Networked Improvement Communities of STEM Educators Actively Engaging Students through Peer*  *Mentoring*. National Science Foundation, Department of Undergraduate Education, Institutional Change and Transformation. Total \$2,000,000. Recommended for Funding.

- Yow, J., Yee, S.P., Gess, A., Lotter, C., & Roy, G. (CoPI: 2025-2030). STEM Teacher Leadership through Action Research in Rural Communities (STEM-TLAR2C). National Science Foundation Robert Noyce Teacher Scholarship Program, Track 3: \$3,00,000. Pending
- 3. Deas, K., **Yee, S.P.**, Roy, G. (CoPI: 2025-2027). *Mentoring for Math Proficiency (M4MP)*. Excel Grant by the Office of VP of Research at USC. \$15,000. Pending.

#### Funded

- 1. Ryker, K. & **Yee, S.P.** (CoPI: 2022-2025) *Junior Science and Humanities Symposium Regional Science Fair*. United Stated Department of Defense. \$30,000 per year for 3 years. Funded.
- Yee, S.P., & Hauk, S. (PI: 2024-2025). Advice for Developing Programs in Teaching-focused Professional Development. Supplemental Cost Extension: Improving the Preparation of College Mathematics Instructors to Implement Student-centered, Inclusive Teaching. Improving Undergraduate STEM Education (IUSE), National Science Foundation (NSF): Total \$59,000. USC Share \$35,000.
- Hauk, S., Speer, N., & Yee, S.P., Jackson, B. Patterson, C., Tsay, J-J. (PI:2024-2029). College Mathematics Instructor Development Source (CoMInDS) 2.0. National Science Foundation, Department of Undergraduate Education, Institutional Change and Transformation. Total \$1,000,000. USC Share \$70,449. Funded.
- 4. Yee, S.P. (PI: 2022-Present). <u>Proposal to Support the Peer-Mentor Program for Mathematics</u> <u>Graduate Student Instructors.</u> Proposal submitted and supported by the Mathematics Department and the College of Arts and Sciences: **\$10,000 reoccurring annually**. Funded.
- 5. Yee, S.P. & Ryker K., (PI: 2022-2023). An Interdisciplinary Community of Practice for Professional Track Faculty on the Scholarship of Teaching and Learning. McCausland Innovation Fund, College of Arts and Sciences, University of South Carolina: \$49,920. Funded.
- Yow, J. A., Lotter, C., Yee, S.P., & Ely, B. (CoPI: 2022-2027). University of South Carolina Science and Mathematics Teacher Initiative Phase 3. National Science Foundation Robert Noyce Teacher Scholarship Program: \$1,449,984. Funded.
- Yee, S.P., & Harbour, K. (PI: 2022-Present). <u>Proposal for Successful and Collaborative</u> <u>Implementation of EDTE 500 and EDTE 501.</u> Proposal submitted and supported by both Mathematics Department and College of Education to establish consistent support for new elementary methods courses: \$9000 up front with \$1200 reoccurring annually. Funded.
- 8. **Yee, S.P**. & Crooks-Monastra, J. (PI: 2021-2022). *Planning and Teaching for Student Learning in Mathematics: How Graduate Student Instructors Develop and Implement Instruction*. SPARC grant at USC. (\$5000). Funded.
- Lu, L., Dahmen, W., & Wang, Q. (Senior Personnel: 2021-2026) Mathematical Foundation of Data Science at University of South Carolina. National Science Foundation, Research Training Groups in the Mathematical Sciences (RTG): \$1,996,609. Funded
- Yee, S.P., & Hauk, S. (PI: 2020-2021). Improving the Preparation of College Mathematics Instructors to Implement Student-centered, Inclusive Teaching. Improving Undergraduate STEM Education (IUSE), National Science Foundation (NSF): Total \$300,000. USC Share \$180,000.
- Yee, S.P., Deshler, J., & Rogers, K.C. (PI: 2017-2021). Mathematics Graduate Student Peer-Mentorship Program: Impact and Adaptability. Improving Undergraduate STEM Education (IUSE), National Science Foundation (NSF): Total \$600,000. USC Share \$180,415.
- 12. Yee, S.P. (PI: 2018-2020). Active-Learning Lesson Plans for First-Time Graduate Student Instructors. University of South Carolina College of Arts and Sciences Innovative Teaching Associate Grant: Total \$10,000.

- Dahmen, W., Binev, P., & Yee, S.P. (Co-PI 2019-2021) Spring School Series: Models and Data. National Science Foundation (NSF). Division of Mathematical Sciences-Computational Mathematics Grant: \$30,000.
- Yee, S.P., & Rogers, K.C. (PI: 2015-2017). Implementing a Peer-Mentorship Model for Mathematics Graduate Student Instructors. Improving Undergraduate STEM Education (IUSE), National Science Foundation (NSF): Total \$300,000, USC Share \$130,766.
- 15. **Yee, S.P.** (PI: 2014-2015). *Touchstones for Secondary Mathematics Education Methods Courses*. Southeastern Conference (SEC) Visiting Faculty Travel Grant: \$1318.
- Yee, S.P. (PI: 2013-2014). Improving How Mathematics Teachers Listen Using Conceptual Metaphors. Junior Faculty Intramural Research Grant, California State University, Fullerton: \$6413.
- 17. Bonsangue, M., Ellis, M., Yopp-Edwards, R. (Senior Personnel: 2012-2014). NOYCE Grant for Mathematics Teaching Fellows and Master Teaching Fellows Project (MT2). (Senior Personnel) National Science Foundation (NSF): \$2,500,000.
- Margolius, B., Yee, S. P. (PI: 2010-2013). Grant- Researcher and Designer for Online Flash Applets for Collegiate Mathematics Classes. (Co-PI). National Science Foundation (NSF) Division of Undergraduate Education (DUE). Cleveland State University. \$200,000.
- Henderson, J., Rose, M., Yee, S. P. (Senior Personnel: 2008-2011). Curriculum Leadership Institute (CLI). (Co-PI). Martha Holden Jennings Grant. http://www.ehhs.kent.edu/cli/. \$100,000.
- 20. Yee, S. P. (2008-2012). Graduate Student Conference Presentation Grants (PME-NA, RCML, NCTM, JCT). (PI). Kent State University. \$4000.

## PUBLICATIONS

### **Refereed Journal Articles**

- 1. Yee, S.P., Rogers, K.C., Petrulis, R., Deshler, J. (Under Review). Novice Graduate Student Instructors' Active-Learning Ingresses. *Journal for Research in Mathematics Education (JRME)*.
- Evans, E., Bostic, J., & Yee, S. P. (2024). Productive Problem-Solving Behaviors of Students with Learning Disabilities. *Investigations in Mathematics Learning*, 1–18. https://doi.org/10.1080/19477503.2024.2396720
- National Academies of Sciences, Engineering, and Medicine (NASEM), Yee, S. P. Co-Author. (2024). <u>Equitable and Effective Teaching in Undergraduate STEM Education: A Framework for</u> <u>Institutions, Educators, and Disciplines</u>. National Policy Document. National Academies Press: Washington, DC.
- 4. Yee, S. P., Hauk, S., LopezGonzalez, T., & Wang, J. (2023). College mathematics instructor professional development providers: Who are they? *School Science and Mathematics*, 123, 39-41. <u>https://doi.org/10.1111/ssm.12571</u>
- Yee, S. P., Papalia, N., Deshler, J., Rogers, K. C., Lamarche, A., & Petrulis, R. (2023). Graduate Student Instructor Peer-Mentoring: Design and Impact. *Problems, Resources, and Issues in Mathematics Undergraduate Studies PRIMUS*, 34(7), 693–713. https://doi.org/10.1080/10511970.2023.2241459
- Brummer, J., Yee, S. P., & Wakefield, N. (2023). Collaborating on Inquiry-Based Mathematics Education Curricula with Graduate Student Instructors to Establish an Equitable and Sustainable Community of Practice. *PRIMUS*, *34*(7), 714–734. <u>https://doi.org/10.1080/10511970.2023.2222278</u>
- Yee, S. P., Rogers, K. C., Miller, E., & Galvin, T. (2022). Collegiate Mathematics Observation Protocols: Current Characteristics and Desired Foci. *International Journal of Research in Undergraduate Mathematics Education*, 1-32. (*IJRUME*). <u>https://doi.org/10.1007/s40753-022-00199-4</u>

- 8. Yee, S., & Rogers, K. (2022). Active learning and STEM education: Who is active? Who is learning? *School Science and Mathematics*, *122*(2), 71-73.
- 9. Yee, S.P., Deshler, J., Rogers, K. C., Petrulis, R., Potvin, C. D., & Sweeney, J. (2021). Bridging the gap between observation protocols and formative feedback. *Journal of Mathematics Teacher Education*, 1-29.
- 10. Yee, S.P., Roy, G., Graul, L. (2020). Yee, S. P., Roy, G. J., & Graul, L. (2020). Conditional reasoning online with mastermind. *Mathematics Teacher: Learning and Teaching PK-12*, *113*(5), 390-396.
- Rogers, K.C., Petrulis R.A., Yee, S.P., & Deshler, J. (2019). Mathematics Graduate Student Instructor Observation Protocol (GSIOP): Development and Validation Study. International Journal of Research in Undergraduate Mathematics Education (IJRUME). https://doi.org/10.1007/s40753-019-00106-4
- 12. Yee, S.P., Otten, S., & Taylor, M.W. (2018). What do we value in secondary mathematics teaching methods? *Investigations in Mathematics Learning* (IML). 10(4), 187-201.
- Yee, S.P., Boyle, J. D., Ko, Y. Y., & Bleiler-Baxter, S. K. (2018). Effects of constructing and communally critiquing arguments with classroom-generated criteria. *Journal of Mathematical Behavior* (JMB), 49(2018), 145-162.
- 14. Yee, S. P. (2017). Students' and teachers' conceptual metaphors for mathematical problem solving. *School Science and Mathematics*, 117(3-4), 146-157.
- 15. Ko, Y. Y., **Yee, S.P**., Bleiler-Baxter, S. K., & Boyle, J. D. (2016). Empowering students' proof learning through communal engagement. *Mathematics Teacher*, 109(8), 618-624.
- 16. Boyle, J.D., Bleiler, S. K., **Yee, S.P.**, & Ko, Y. (2015). Transforming perceptions of proof: A fourpart instructional sequence. *Mathematics Teacher Educator* (MTE), 4(1), 32-38.
- 17. Yee, S.P. & Bostic, J. D. (2014). Developing a students' contextualization of problem solving. *Journal of Mathematical Behavior (JMB)*, 36(2014), 1-19.
- 18. Yee, S.P. (2013). Problem solving concretely with the word like. *Investigations in Mathematics Learning (IML)*, 5(3), 25-43.

### **Non-refereed Journal Articles**

- Yee, S.P., & Rogers, K.C. (2021). Sustained support for graduate teaching assistants in mathematics. In *College Mathematics Instructor Development Source (CoMInDS)*. Mathematical Association of America. Retrieved from <u>https://connect.maa.org/viewdocument/sustainedsupport-for-graduate-teac?CommunityKey=cc0d52e1-9a32-429c-8f97d5f71a6d9b54&tab=librarydocuments</u>.
- Rogers, K.C. & Yee, S.P. (2021). Learning to use assessments in teaching college mathematics. In College Mathematics Instructor Development Source (CoMInDS). Mathematical Association of America. Retrieved from <u>https://connect.maa.org/viewdocument/sustained-support-for-graduate-teac?CommunityKey=cc0d52e1-9a32-429c-8f97-d5f71a6d9b54&tab=librarydocuments</u>.
- Yee, S.P., Roy, G., Graul, L. (2021). Yee, S. P., Roy, G. J., & Graul, L. (In Press). Activities and lesson plans for conditional reasoning online with mastermind. *Illuminations*. National Council of Teachers of Mathematics Education. Retrieved from <u>https://illuminations.nctm.org/alllessonsactivities.aspx</u>.

### **Refereed Conference Articles**

- Gayle, A., Yee, S.P. (2024). Infusing Mathematics into Collegiate Chemistry: Impact on Self-Efficacy and Problem-Solving. *Proceedings of the 123<sup>rd</sup> School Science and Mathematics Association Annual Convention*. Knoxville, TN.
- Yee, S. P., Wang, J., Hauk, S., & LopezGonzalez, T. (2024). <u>National picture of Providers of</u> collegiate professional development for teaching mathematics: Formats, topics, and activities. In

S. Cook B., Katz, and D. Moore-Russo (Eds.), *Proceedings of the 26th Annual Conference on Research in Undergraduate Mathematics Education* (pp. 519-527), Omaha, NE.

- Yee, S. P., Wang, J., Hauk, S., & LopezGonzalez, T. (2023). <u>Providers of professional development</u> for novice college mathematics instructors: Perspectives and values about teaching and <u>learning.</u> In S. Cook B., Katz, and D. Moore-Russo (Eds.), *Proceedings of the 25th Annual Conference on Research in Undergraduate Mathematics Education* (pp. 420-428), Omaha, Nebraska.
- Monastra, J. C., Yee, S. P. (2023) What is so difficult about teaching precalculus for the first time? Graduate students' perspectives on learning to teach. In S. Cook B., Katz, and D. Moore-Russo (Eds.), Proceedings at the 25th annual Conference on Research in Undergraduate Mathematics Education (pp. 685-693), Omaha, Nebraska.
- Crooks-Monastra, J. & Yee, S.P. (2022, February). Goals for Student Learning among Mathematics Graduate Student Instructors (MGSIs). Conference Proceedings in the 24th annual Conference on Research in Undergraduate Mathematics Education (Boston, MA).
- Rogers, K., Galvin, T., & Yee, S.P. (2022, February). Active-Learning Strategies That Suggest Ingresses for Math Graduate Student Instructors' Use of Student-Centered Teaching. Conference Proceedings in the 24th annual Conference on Research in Undergraduate Mathematics Education (Boston, MA).
- Rogers, K.C., Yee, S.P., Deshler, & J. Petrulis R.A., (July, 2021). Instructors, mentors, and students: A cross-comparison of perceptions of student-centered instruction. International Congress on Mathematical Education (ICME), Shanghai, China.
- 8. Yee, S.P., Deshler, J., Rogers, K.C., Papalia, N., & Lamarche, A. (February, 2020). Interpreting undergraduate student complaints about graduate student instructors through the lens of the instructional practices guide. Proceedings from 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME, pp. 673-681), Boston, MA.
- Miller, E.R., Rogers, K.C., & Yee, S.P. (February, 2020). Analyzing collegiate mathematics observation protocols: Attending to the instructional triangle and inquiry-based mathematics education practices. Proceedings from 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME, pp. 422-430), Boston, MA.
- 10. Brummer, J., Wakefield, N., & **Yee, S.P.** (February, 2020). Analysis of collaborative curriculum adaptation. Proceedings from 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME, 1242-1244), Boston, MA.
- 11. Yee, S.P., Deshler, J., & Rogers, K.C. (February, 2019). Connecting observation protocols and post-observation feedback. Proceedings from 46th Annual Research Council on Mathematics Learning (RCML, pp. 83-90), Charlotte, NC.
- Yee, S.P., Deshler, J., Rogers, K.C., Petrulis, R.A., Potvin, C.D., & Sweeney, J. (February, 2019). Bridging the gap: From graduate student instructor observation protocol to actionable postobservation feedback. Presented at the 22nd Annual Conference on Research in Undergraduate Mathematics Education (RUME, pp. 705-713), Oklahoma City, OK.
- Rogers, K.C. & Yee, S.P. (2018, February). Peer mentoring mathematics graduate student instructors: discussion topics and concerns. Proceedings from 21<sup>st</sup> Conference of the Research in Undergraduate Mathematics Education (RUME), San Diego, CA.
- Rogers, K. C. & Yee, S.P. (2017, November). Experienced and novice graduate students navigating mathematics instruction together. Proceedings from 39th Conference of the North American Chapter of the Psychology of Mathematics Education (PME-NA, p.539), Indianapolis, IN.
- 15. Yee, S.P. & Rogers, K. C. (2017, March). Training graduate student instructors as peer mentors: how were mentors' views of teaching and learning affected? In T. Olson & L. Venenciano (Eds.),

Proceedings from 44<sup>th</sup> Annual Research Council on Mathematics Learning (RCML, pp. 33-44), Fort Worth, TX: Research Council on Mathematics Learning (RCML).

- Monastra, J. C. & Yee, S.P. (2017, March). Math is not a race: One student's journey from basic algebra to doctoral classes. In T. Olson & L. Venenciano (Eds.), Proceedings from 44<sup>th</sup> Annual Research Council on Mathematics Learning (RCML, pp. 65-72), Fort Worth, TX: Research Council on Mathematics Learning (RCML).
- Yee, S.P. & Rogers, K. C. (2017, February). Mentor professional development for mathematics graduate student instructors. Proceedings from 20<sup>th</sup> Conference of the Research in Undergraduate Mathematics Education (RUME, pp. 1026-1034), San Diego, CA.
- Yee, S.P., Boyle, J. D. Ko, Y. Y., & Bleiler, S. K. (2016, November). Empowering ownership of proof with communal proof-writing criteria. In G. Matney & M. Che. (Eds.), Proceedings from 38th Conference of the North American Chapter of the Psychology of Mathematics Education (PME-NA, pp.652-659), Tucson, AZ.
- Yee, S.P. & Rogers, K. C. (2016, February). Graduate students' pedagogical changes using iterative lesson study. Proceedings from 19<sup>th</sup> Conference of the Research in Undergraduate Mathematics Education (RUME, pp. 1458-1466), Pittsburgh, PA.
- Otten, S., Yee, S.P., & Taylor, M. W. (2015, November). Secondary mathematics methods courses: what do we value? Proceedings from 37th Conference of the North American Chapter of the Psychology of Mathematics Education (PME-NA, pp. 772-779), Lansing, MI.
- Yee, S.P., Boyle, J. D. Ko, Y. Y., & Bleiler, S. K. (2015, February). Empowering ownership of proof with communal proof-writing criteria. In G. Matney & M. Che. (Eds.), Proceedings from 42<sup>nd</sup> Annual Research Council on Mathematics Learning (RCML, pp. 33-41), Las Vegas, NV: Research Council on Mathematics Learning (RCML).
- 22. Yee, S.P., Ko, Y., Bleiler, S., & Boyle, J. (2014). Communal assessment of proof: Undergraduates' development of proof-writing criteria. In P. Liljedahl, et al. (Eds.), Proceedings from the 38<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education and the 36<sup>th</sup> Conference of the North American Chapter of the Psychology of Mathematics Education (Vol 6, pp. 415-416). Vancouver, Canada: University of British Columbia, Vancouver.

#### **Refereed Book Chapters**

- Yee, S. P., Rogers, K. C., Williams, M., Funk, R., & Smith, W. M. (2024). <u>Dimensions for</u> <u>development and implementation of active learning in higher education</u>. In K. Carbonneau (Ed.) *Instructional Strategies for Active Learning*. IntechOpen. DOI: 10.5772/intechopen.114345.
- Bleiler, S., Ko, Y., Yee, S.P., & Boyle, J. (2015). Chapter 9: Communal development and evolution of a course rubric for proof writing. In K. Karp (Ed.), *Annual Perspectives in Mathematics Education* (APME): *Assessment to Enhance Learning and Teaching* (97-108). Reston, VA: National Council of Teachers of Mathematics (NCTM).

## PRESENTATIONS

#### **Invited Presentations at Professional Meetings**

- National Academies of Sciences, Engineering, and Medicine (NASEM), Yee, S. P. Co-Author. (2024). <u>Graduate Students as Part of the Instructional Workforce for Undergraduate STEM</u> <u>Education</u>. Invited Panelist for Roles, Responsibilities, and Expectations of STEM Graduate Students and Postdoctoral Scholars: A Conversation Series. National Academies Washington, DC.
- Ensley, D., Waller, P., Yee, S.P., Strom, A., & Doree, S. (2024). *Developing Grant Proposals for NSF Division for Undergraduate Education*. Panel Session at Annual Mathematical Association of America Mathfest Conference, Indianapolis, IN.
- 3. Hauk, S., & Yee, S. P. (2024, January). <u>Improving the preparation of graduate students to</u> <u>implement student-centered inclusive teaching</u>, *NSF Special Session on Outcomes and*

*Innovations from NSF Undergraduate Education Programs in the Mathematical Sciences.* Annual Joint Mathematics Meetings hosted by the American Mathematical Society, San Francisco, CA.

- 4. Yee, S.P., & Meade, D. (2023) *Coordination, synergy, and communication: Critical pillars for successful implementation of active learning*. Speaker Invited to Panel: Highlights from Research on Instructors' Learning about Teaching, I, Joint Mathematics Meeting (JMM), Boston, MA.
- Yee, S.P. (2023). Bridging the gap between observation protocols and formative feedback. Invited Speaker to University of Oklahoma's Research in Undergraduate Mathematics Education Seminar (OU RUME), Norman, OK.
- 6. **Yee, S.P.** (2023). *Navigating Expectations.* Invited Speaker to Mid-Career Faculty Development Program, Deans Program in the College of Arts and Sciences at the University of South Carolina, Columbia, SC.
- 7. **Yee, S.P.** (2022, Feb). *Active Learning: Who is Active?* Invited Presentation at the University of Oklahoma's Research in Undergraduate Mathematics. Norman, OK.
- 8. Yee, S.P. (2022, Feb). *Who is Active in Active Learning?* Invited Presentation at the University of Auburn as part of the Critical Issues in Teaching and Learning seminar series. Auburn, AL.
- 9. Yee, S.P. (2022, Jan). *GTA Training Panel*. Invited to Panel Presentation at the Mathematical Association of America's Joint Mathematics Meeting Conference, Seattle, WA. Cancelled due to Covid.
- 10. **Yee, S.P.** (2022). *Preparing Students for Middle School Math With 1,0, And*  $\infty$ . Invited Presentation for Dr. Christie Martins Mathematics Methods Course, Columbia, SC.
- 11. Rogers, K.C., **Yee, S.P.**, Deshler, & J. Petrulis R.A., (2020). *Instructors, mentors, and students: A cross-comparison of perceptions of student-centered instruction*. International Congress on Mathematical Education (ICME), Shanghai, China.
- 12. **Yee, S.P.** (2019). *Operationally learning about active learning.* Student Engagement in Mathematics through an Institutional Network for Active Learning (SEMINAL).
- 13. **Yee, S.P.** (2018). *Argumentation, justification, and proof.* Panel Speaker for the 40<sup>th</sup> Conference for the Psychology of Mathematics Education of North America (PME-NA), Greenville, SC.
- 14. Yee, S.P. & Rogers, K. C. (2017, January). Graduate student instructor mentorship model: A professional development that trains experienced graduate students to pedagogically mentor novice mathematics graduate student instructors. Presentation at special session on TAs and PartTime Instructors 2017 Joint Math Meetings Conference, Atlanta, GA.
- 15. Yee, S.P. (2016). *Concretizing mathematical problem solving with metaphors.* International Congress on Mathematical Education (ICME), Hamburg, Germany. [Accepted with invitation to present, but had to withdraw due to heart problems]
- 16. **Yee, S.P.** (2017, October). *Peer-mentorship model for mathematics graduate student instructors*. Presentation at Center for Teaching Excellence at the University of South Carolina.
- 17. **Yee, S.P.** (2017, April). *Communal classroom criteria of proof…what counts?* Speaker at AP Reading Day presentation at the University of South Carolina.
- 18. Yee, S.P. (2015, February). *Teaching with technology: From tablets to Nintendo Wii Smartboards*. Speaker at Richland One School District Teacher Professional Development.
- Yee, S.P. (2015, January). Communal criteria to empower proof education. Colloquium Talk for the College of Education at the University of Missouri. Columbia, Missouri. <u>http://prezi.com/iibgkrhjudpu/?utm\_campaign=share&utm\_medium=copy&rc=ex0share</u>
- Yee, S.P. & Bostic, J. D. (2014, October 11). Developing a contextualization of students' problem solving [Audio Podcast]. Retrieved from <u>http://mathed.podomatic.com/entry/2014-10-11T21\_27\_29-07\_00.</u>
- 21. Yee, S.P. (2014, December). *Communal criteria to empower proof education*. Colloquium Talk for the Department of Mathematics at Bowling Green State University (BGSU). Bowling Green, Ohio.

## **Research Workshops**

- Yee, S. P. (2024). Exploring a National Policy Framework for Equitable and Effective Undergraduate STEM Education. Workshop for the 123<sup>rd</sup> School Science and Mathematics Association Annual Convention. Knoxville, TN.
- Hauk, S., Speer, N., Yee S. P., & Smith. W. (2024, February 22). Working Group for Research on College Mathematics Instructor Professional Growth. Half-day Workshop session at the 26th annual Conference on RUME, Omaha, NE. [n= 36 participants]

## **Contributed Presentations**

### International

- Rogers, K. C. & Yee, S.P. (2017, November). Experienced and novice graduate students navigating mathematics instruction together. Proceedings from 39th Conference of the North American Chapter of the Psychology of Mathematics Education (PME-NA, p. 539), Indianapolis, IN.
- Yee, S.P., Boyle, J. D., Ko, Y. Y., & Bleiler, S. K. (2016, November). *Empowering ownership of proof with communal proof-writing criteria*. In G. Matney & M. Che. (Eds.), Presentation at 38th Conference of the North American Chapter of the Psychology of Mathematics Education (PME-NA, pp.652-659), Tucson, AZ.
- Otten, S., Yee, S.P., & Taylor, M. W. (2015, November). Secondary mathematics methods courses: What do we value? Presentation at 37<sup>th</sup> Annual Meeting of Psychology of Mathematics Education of North America (PME-NA), Lansing, MI.
- Ko, Y., Yee, S.P., Boyle, J. D., & Bleiler, S. K. (2015, April). Shift in arguments: Effect of an instructional sequence. Presentation at the 31<sup>st</sup> Annual International Conference of Association of Science Education Taiwan (ASET), Kenting, Taiwan. <u>http://seerinn.com/aset2015/</u>.
- Bleiler, S., Ko, Y., Yee, S.P., & Boyle, J. (2014, July). Communal assessment of proof: Undergraduates' development of proof-writing criteria. Presentation at the 38<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education (PME) and the 36<sup>th</sup> Conference of the north American Chapter of the Psychology of Mathematics, Vancouver, Canada.
- Yee, S.P. (2014, June). Conceptual metaphors as a prescriptive means to improve teacher listening. Presentation at the 8<sup>th</sup> Annual International Conference on Mathematics, Statistics & Education, Athens Institute for Educational Research (ATINER), Athens, Greece.
- Yee, S.P. (2013, November). Meaningful listening through coherent conceptual metaphors. Presentation at 35<sup>th</sup> Annual Meeting of Psychology of Mathematics Education of North America (PME-NA), Chicago, IL.

#### National

- Gayle, A., Yee, S.P. (2024). Infusing Mathematics into Collegiate Chemistry: Impact on Self-Efficacy and Problem-Solving. Presentation at 123<sup>rd</sup> School Science and Mathematics Association Annual Convention. Knoxville, TN.
- 2. **Yee, S.P.** (2024) National Policy Document to Frame Equitable and Effective Undergraduate STEM Education. Presentation at *123<sup>rd</sup> School Science and Mathematics Association Annual Convention*. Knoxville, TN.
- 3. Yee, S.P., Yow, J., Lotter, C., Ely, B., Henson, K., & Gaston, B. (2024) Science and Mathematics Teachers Initiative Phase 3 (USC-SMTI P3) National Science Foundation, American Association for the Academy of Science (AAAS), NOYCE Summit, Washington DC.
- 4. **Yee, S. P.**, Wang, J., Hauk, S., & LopezGonzalez, T. (2024). *National picture of Providers of collegiate professional development for teaching mathematics: Formats, topics, and activities.*

Presentation at the 26th Annual Conference on Research in Undergraduate Mathematics Education, Omaha, NE.

- 5. Ryker, K. & **Yee, S.P.** (2023). *Lesson study as a teaching professional development opportunity for professional track faculty.* X-DBER 2023 Conference. Lincoln, NE.
- Yee, S. P., Wang, J., Hauk, S., & LopezGonzalez, T. (2023). Providers of professional development for novice college mathematics instructors: Perspectives and values about teaching and learning. Presentation at the of the 25th Annual Conference on Research in Undergraduate Mathematics Education, Omaha, NE.
- 7. Monastra, J. C., **Yee, S. P.** (2023) What is so difficult about teaching precalculus for the first time? Graduate students' perspectives on learning to teach. Presentation at the 25th annual Conference on Research in Undergraduate Mathematics Education (pp. 685-693), Omaha, NE.
- Yee, S. P., Hauk, S., LopezGonzalez, T., Wang, H. (2022, June). <u>College Mathematics Instructor</u> <u>Preparation Design Tool: Helping Departments Grow their Teaching.</u> American Association for the Academy of Science (AAAS) Improving Undergraduate STEM Education (IUSE) Summit. Washington, D.C.
- 9. Yee, S.P. (2022, May). Active Learning: History, Complexities, and Paths Forward with Novice Mathematics Instructors. Presentation at the Change in Departments and Institutions via Active Learning (Change DIAL) Conference, Lincoln, NE.
- Yee, S.P., Rogers, K., & Galvin, T., & (2022, February). Natural Active-Learning Ingresses for Novice Undergraduate Mathematics Instructors. Presentation at the 49th annual Conference on Research Council on Mathematics Learning. Grapevine, TX.
- Crooks-Monastra, J. & Yee, S.P. (2022, February). Goals for Student Learning among Mathematics Graduate Student Instructors (MGSIs). Presentation at the 24th annual Conference on Research in Undergraduate Mathematics Education. Boston, MA.
- 12. Rogers, K., **Yee, S.P.,** Speer, N., & Hauk, S. (2022, February). *Working Group for Research on College Mathematics Instructor Professional Growth.* Half-day working group session at the 24th annual Conference on Research in Undergraduate Mathematics Education (Boston, MA).
- Rogers, K., Galvin, T., & Yee, S.P. (2022, February). Active-Learning Strategies That Suggest Ingresses for Math Graduate Student Instructors' Use of Student-Centered Teaching. Presentation at the 24th annual Conference on Research in Undergraduate Mathematics Education. Boston, MA.
- Monastra, J. C. & Yee, S.P. (2021, March). Mathematics graduate student instructors (MGSIs) goals for student learning. Presentation at 44<sup>th</sup> Annual Research Council on Mathematics Learning (RCML), Fort Worth, TX.
- 15. Bode, M., Donsig, A., Rasmussen, C. Rech, J., **Yee, S.P.** (2021). Two in depth stories of successful course coordination: Much more than just the same curriculum. *Student Engagement in Mathematics through an Institutional Network for Active Learning (SEMINAL)*, Association of Public and Land-grant Universities, Washington, DC.
- 16. Rogers, K.C., **Yee, S.P.**, Deshler, J., Bethea, C., Foster, J., Gallagher, K., Southwick, J & Vandermolen, R. (January 2020). *Mathematics graduate student peer-mentorship program: Impact and adaptability in year 3*. Presented at Joint Mathematics Meetings, Denver, CO.
- 17. Yee, S.P., Deshler, J., Rogers, K.C., Papalia, N., & Lamarche, A. (February, 2020). *Interpreting undergraduate student complaints about graduate student instructors through the lens of the instructional practices guide*. Presented at 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME), Boston, MA.
- Miller, E.R., Rogers, K.C., & Yee, S.P. (February, 2020). Analyzing collegiate mathematics observation protocols: Attending to the instructional triangle and inquiry-based mathematics education practices. Presented at 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME), Boston, MA.

- 19. Brummer, J., Wakefield, N., & Yee, S.P. (February, 2020). *Analysis of collaborative curriculum adaptation*. Presented at 23rd Annual Conference on Research in Undergraduate Mathematics Education (RUME), Boston, MA.
- Yee, S.P., Deshler, J., & Rogers, K.C. (2019, February). *Connecting observation protocols and post-observation feedback*. Proceedings from 46th Annual Research Council on Mathematics Learning (RCML, pp. 83-90), Charlotte, NC.
- 21. Yee, S.P., Deshler, J., Rogers, K.C., Petrulis, R.A., Potvin, C.D., & Sweeney, J. (2019, February). Bridging the gap: From graduate student instructor observation protocol to actionable postobservation feedback. Presented at the 22nd Annual Conference on Research in Undergraduate Mathematics Education (RUME, pp. 705-713), Oklahoma City, OK.
- Rogers, K.C., Yee, S.P., Deshler, J. (2019, January). Mathematics graduate student peermentorship program: Impact and adaptability. Poster Session at the 102<sup>nd</sup> Joint Mathematics Meetings, American Mathematical Society (AMS) and Mathematical Association of America (MAA), Baltimore, MD.
- 23. Yee, S.P., Deshler, J., Rogers, K.C., Petrulis, R.A., Potvin, C.D., & Sweeney, J. (2019, January). Making Graduate student instructor observation protocols actionable via post-observation feedback. Presentation at the 102<sup>nd</sup> Joint Mathematics Meetings, American Mathematical Society (AMS) and Mathematical Association of America (MAA), Baltimore, MD.
- 24. **Yee, S.P.** (2019, June). *An Operation framework for active learning.* Presentation at Eighth Annual Mathematics Teacher Education Partnership Conference (MTEP), St. Louis, MO.
- Rogers, K.C. & Yee, S.P. (2018, February) Peer Mentoring Mathematics Graduate Student Instructors: Discussion Topics and Concerns. Presentation at 21<sup>st</sup> Conference of the Research in Undergraduate Mathematics Education (RUME), San Diego, CA.
- 26. Otten, S., Yee, S.P. & Taylor, M. W. (2018, February). Comparing Teachers' and Teacher Educators' Values for Secondary Methods Courses. Presentation at the 22<sup>nd</sup> Annual Association of Mathematics Teacher Educators (AMTE) Conference, Houston, TX.
- Rogers, K. C. & Yee, S.P. (2017, June). Synergizing experienced & novice graduate student instruction via peer mentorship. Presentation at Transforming Research in Undergraduate STEM Education (TRUSE), St. Paul, MN.
- Yee, S.P. & Rogers, K. C. (2017, March). Training graduate student instructors as peer mentors: How were mentors' views of teaching and learning affected? Presentation at 44<sup>th</sup> Annual Research Council on Mathematics Learning (RCML), Fort Worth, TX.
- Monastra, J. C. & Yee, S.P. (2017, March). Math is not a race: One student's journey from basic algebra to doctoral classes. In T. Olson & L. Venenciano (Eds.), Presentation at 44<sup>th</sup> Annual Research Council on Mathematics Learning (RCML), Fort Worth, TX.
- Yee, S.P. & Rogers, K. C. (2017, February). Mentor professional development for mathematics graduate student instructors. Presentation at 20<sup>th</sup> Conference of the Research in Undergraduate Mathematics Education (RUME, pp. 1026-1034), San Diego, CA.
- 31. **Yee, S.P.** (2016, April). *Constructing and critiquing arguments: Effect of an instructional sequence*. Presentation at Annual National Council of Teachers of Mathematics (NCTM) Research Session, San Francisco, CA.
- Yee, S.P., Rogers, K.C., & Sharghi, S. (2016, February). Graduate students' pedagogical changes using iterative lesson study. Presentation at 19<sup>th</sup> Annual Research in Undergraduate Mathematics Education (RUME) Conference, Pittsburgh, PA.
- Yee, S.P., Safi F., & Dickey, E. (2016, January). Integrating recursive pedagogical content knowledge with the tower of Hanoi. Presentation at the 20th Annual Association of Mathematics Teacher Educators (AMTE) Conference, Orlando, FL.
- 34. Ko,Y., **Yee, S.P.**, Boyle, J.D., Bleiler-Baxter, S.K. (2016, January). *Supporting teachers' capabilities* to engage students in constructing viable arguments and critiquing others' reasoning.

Symposium at the 20th Annual Association of Mathematics Teacher Educators (AMTE) Conference, Orlando, FL.

- Yee, S.P., Otten, S., & Taylor, M. W. (2015, June). *Curricular touchstones for secondary methods courses.* Presentation at the 2015 National Conference for the Association of Public Land-grant Universities (APLU) Science and Mathematics Teaching Imperative (SMTI), New Orleans, LA.
- 36. Boyle, J. D., Bleiler, S. K., Ko, Y., & **Yee, S.P.** (2015, April). *What counts? Developing communal understanding of proof through creating classroom-based criteria*. Presentation at the 2015 Annual Conference of National Council of Teachers of Mathematics (NCTM), Boston, MA.
- Boyle, J. D., Bleiler, S. K., Yee, S.P., & Ko, Y. (2015, April). *Constructing viable arguments and critiquing the reasoning of others: Where to start?* Presentation at the 47<sup>th</sup> Annual Conference of National Council of Supervisors of Mathematics (NCSM), Boston, MA.
- Bostic, J., Conrady, K., Ives, S., & Yee, S. (2015, February). Smoothing the ups and downs: Tools for professional transitions. Presentation at 42<sup>nd</sup> Annual Research Council on Mathematics Learning (RCML) Conference, Las Vegas, NV.
- Yee, S.P., Boyle, J. D., Ko, Y., & Bleiler, S. K. (2015, February). *Empowering ownership of proof with communal proof-writing criteria*. Presentation at 42<sup>nd</sup> Annual Research Council on Mathematics Learning (RCML) Conference, Las Vegas, NV.
- Yee, S.P. & Taylor, M. W. (2015, February). Developing touchstones for secondary mathematics methods courses. Presentation at the 19<sup>th</sup> Annual Association of Mathematics Teacher Educators (AMTE) Conference, Orlando, FL.
- 41. Yee, S.P., Bleiler, S. K., & Boyle, J. D. (2015, February). *Creating classroom-developed criteria for what counts as proof*. Presentation at the 19th Annual Association of Mathematics Teacher Educators (AMTE) Conference, Orlando, FL.
- 42. Bleiler, S. K., Boyle, J. D., Ko, Y., & **Yee, S.P.** (2014, June). *Developing communal understanding of proof-writing criteria*. Presentation at the 17th Annual Legacy of R.L. Moore Inquiry-Based Learning Conference (IBL), Denver, CO.
- Yee, S.P. (2014, February). 3-Column proof in algebra courses for preservice teachers. Presentation at the 18<sup>th</sup> Annual Association of Mathematics Teacher Educators (AMTE) Conference, Irvine, CA.
- Bleiler, S. K., Boyle, J. D., Ko, Y., & Yee, S.P. (2014, January). Communal assessment of proof: Undergraduates' development of proof-writing criteria. Presentation at the 97<sup>th</sup> Joint Mathematics Meetings, American Mathematical Society (AMS) and Mathematical Association of America (MAA), Baltimore, MD.
- 45. **Yee, S.P.** (2013, April). *Conceptual metaphors of problem solving: Listening for experiences.* National Council of Teachers of Mathematics (NCTM) Research Presession Denver, CO.
- Yee, S.P. (2013, January). Improving undergraduate mathematics education using dynamic graphics embedded within Webwork. American Mathematics Society (AMS) Joint Mathematics Meeting (JMM) Annual Conference, San Diego, CA.
- Yee, S.P. (2013). Metaphors as a medium for hermeneutic listening for teachers. Proceedings of 40<sup>th</sup> Annual Research Council on Mathematics Learning (RCML, pp. 171-187) Conference, Tulsa, OK.
- Yee, S.P. & Bostic, J. (2012). A developmental perspective into students' contextualization of problem solving. 34<sup>th</sup> Annual Meeting of Psychology of Mathematics Education of North America (PME-NA, pp. 190-194), Kalamazoo, MI.

#### **Regional or State**

1. **Yee, S.P.** (2024). *National Policy Document to Frame Equitable and Effective Undergraduate STEM Education*. Oktoberbest: A Symposium On Teaching. University of South Carolina, Columbia, SC.

- 2. **Yee, S.P.** (2021, November). *Operationally Learning about Active Learning*. Presentation at the Annual South Carolina Council of Teachers of Mathematics Conference (SCCTM), Columbia, SC.
- 3. Graul, L., Roy, G., & **Yee, S.P.** (2017, November). *Using technology to reason mathematically with the game of Mastermind*. Presentation at the Annual South Carolina Council of Teachers of Mathematics Conference (SCCTM), Greenville, SC.
- 4. Yee, S.P. (2016, November). *Improving teacher listening through student metaphors for problem solving.* Presentation at the Annual South Carolina Council of Teachers of Mathematics Conference (SCCTM), Greenville, SC.
- 5. **Crooks-Monastra, J. & Yee, S.P.** (2016, November). *Math is not a race: From high school dropout to mathematics doctoral student.* Presentation at the Annual South Carolina Council of Teachers of Mathematics Conference (SCCTM), Greenville, SC.
- 6. **Yee, S.P.** (2016, February). *Implementing a peer-mentorship model for mathematics graduate student instructors*. Presentation at CoMInDS Grant Research Conference. Duke University, NC.
- 7. **Yee, S.P.**, Boyle, J. D., Bleiler-Baxter, S. K., & Ko, Y. (2015, November). *Making proof count: Empowering proof education through communal criteria*. Presentation at the 2015 Nashville Regional Conference of National Council of Teachers of Mathematics (NCTM), Nashville, TN.
- Ko, Y., Boyle, J. D., Yee, S.P., & Bleiler-Baxter, S. K. (2015, November). *Making proof count: Empowering proof education through communal criteria*. Presentation at the 2015 Minneapolis Regional Conference of National Council of Teachers of Mathematics (NCTM), Minneapolis, MN.
- 9. **Yee, S.P.** (2014, November). *Number line dancing.* Presentation at the 38<sup>th</sup> Annual South Carolina Council of Teachers of Mathematics Annual Conference (SCCTM), Myrtle Beach, SC.
- Yee, S.P. & LaCassa, M. (2014, October). Because you're mine, I dance the line. Presentation at the 54<sup>th</sup> Annual California Mathematics Council South Annual Conference (CMC-South), Palm Springs, CA.
- Yee, S.P., Lajevardi, S., & Hernandez, G. (2013, November). *Practice makes research*. Presentation at 54<sup>th</sup> Annual California Mathematics Conference South (CMC-South), Palm Springs, CA.
- 12. **Yee, S.P.** (2013, October). *Listening to student experiences through conceptual metaphors for problem solving.* Northwest Mathematics Council (NWMC) Conference, Bellevue, WA.
- 13. Yee, S.P., Otten, S., & Taylor, M. W. (2015, June). *Curricular touchstones for secondary methods courses.* Presentation at the 2015 National Conference for the Association of Public Land-grant Universities (APLU) Science and Mathematics Teaching Imperative (SMTI), New Orleans, LA.
- Ko, Y., Yee, S.P., Boyle, J. D., & Bleiler, S. K. (2015, April). Shift in arguments: Effect of an instructional sequence. Presentation at the 31<sup>st</sup> Annual International Conference of Association of Science Education Taiwan (ASET), Kenting, Taiwan. <u>http://seerinn.com/aset2015/</u>
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- Yee, S.P., Lajevardi, S., & Hernandez, G. (2013, November). *Practice makes research*. Presentation at 54<sup>th</sup> Annual California Mathematics Conference South (CMC-South), Palm Springs, CA.
- 30. **Yee, S.P.** (2013, October). *Listening to student experiences through conceptual metaphors for problem solving.* Northwest Mathematics Council (NWMC) Conference, Bellevue, WA.
- 31. Yee, S.P. (2013, April). *Conceptual metaphors of problem solving: Listening for experiences*. National Council of Teachers of Mathematics (NCTM) Research Presession Denver, CO.
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## SERVICE

## **Professional Community**

2022-Present	Served on the National Academy of Science, Engineering, and Medicines' Consensus
	Committee Equitable and Effective Teaching in Undergraduate STEM Education: A
	Framework for Institutions, Educators, and Disciplines.
2022-Present	Associate Editor for School Science and Mathematics Association (SSMA)
2022-Present	Associate Editor for Investigations on Mathematics Learning (IML).
2022-Present	Nominated and serve on Board of Directors for SSMA
2012-Present	Manuscript Reviewer for 13 journals (e.g. IML, JMB, JMEL, JMTE, MTL, NCSM, NCTM- MT, NCTM-MTMS, & SSMA)
2010-Present	Proceedings Reviewer for 16 conferences (e.g. ICME, NCTM Research Session, PME, PME-NA, RCML, & RUME)
2010-Present	Conference Reviewer for more than 30 conferences (e.g. AERA, PME, PME-NA, RCML, & RUME)
2015-Present	NSF Grant Reviewer
2022-2024	Serve on Mathematical Association of America (MAA) and American Mathematical Society's (AMS) Teaching Assistant and Part-Time Instructor Committee
2024	Conference Chair for RCML 2024 Conference in Columbia. SC.
2022-2023	Served on MAA Program Review Committee in Washington, DC.
2018-2022	Advisory Board Member for PSUM-GTT Grant
2017-2020	Nominations/elections committee member for School Science Mathematical Association.
2016-2018	Editorial Board Member for Investigations in Mathematics Learning
2015-2017	Conference committee board member for RCML

### University

2020-Present Co-Director (with Dr. Katherine Ryker) of the Center for Science Education (CSE) Including:

- Providing Professional Development for Professional Track Faculty
- Orchestrated Junior Science Humanities Symposium
- Orchestrated Science and Engineering Fair for Richland County
- Establishing and growing resources for College of Education Collaboration around Grantwork.
- Performing managerial roles for Professors who work for the Center (e.g. Employee Performance Reviews)
- 2020-2024 Chair University Committee on Professional Track Faculty
- 2016-2020 Creating, piloting, and implementing advanced teaching certification for Distinction in Teaching (PfF with Distinction in Teaching)
- 2018 Octoberfest-Teaching Teachers for the Center of Teaching Excellence
- 2015 Asked to present for new university faculty at the beginning of the FALL 2015 semester

### College

- 2024 College of Education: Put forth portfolio for Early Career Teaching Award for Dr. Ashley Gess 2022 College of Arts and Sciences: Organized and led Diversity. Equity, and Inclusion
- 2022 College of Arts and Sciences: Organized and led Diversity, Equity, and Inclusion Colloquium Presenter visit (Dr. Wendy Smith) with Aisha Haynes
- 2018 College of Arts and Sciences Gamecock Teaching Days

2018 College of Arts and Sciences Innovative Teaching Associate. Service to act as an Ambassador of teaching for the mathematics department

### Department

- 2019-Present Department of Teacher Education: STEM EdD Committee (Monthly N'Sync meetings, qualifying exam evaluations, new graduate student orientation, and regular meetings to improve program.) 2015-2020 Department of Mathematics: Advising undergraduate students on classes. 2014-Present Taught Courses for fellow faculty when needed for sick faculty or faculty who were at conferences. 2014-Present Department of Mathematics: Reviewed Mathematics Graduate Students Teaching Philosophies 2014-Present Department of Mathematics: Initiated, authored, and published over 100 newsletters labeled "Math Grad TAbloid" for Graduate Teaching Assistants (GTAs). Newsletter can be found at http://seanpyee.wix.com/uscmgt Department of Mathematics: Observed >80 Graduate Teaching Assistants (GTAs), wrote 2014-Present up observations, and discussed observations with GTAs. 2014-Present Department of Mathematics: Wrote letters of recommendation (teaching) for >50 graduate and undergraduate students' job applications. 2021-2023 Mathematics Department Chair of Mathematics Education Committee 2021-2023 Mathematics Department: College of Engineering Course Creation and Revision of Precalculus (MATH 115) 2021-2023 Mathematics Department: College of Business Course Creation and Revision of Business Calculus (MATH 122) 2018-2022 Mathematics Department Course Coordinator Committee 2022 Generated Masters of Teaching Youtube video with Dr. Jan Yow to aid the preservice secondary teacher pipeline. 2015-2020 Department of Mathematics: Coordinator for Math 115 (Precalculus) courses. 2014-2019 Department of Mathematics: Aided fellow mathematics professor, Eva Czabarka, in grading graduate students mathematics/mathematics education project. 2015-2018 Department of Mathematics: Elected to Faculty Senate 2017 Presented at the USC Chapter of American Women in Mathematics (AWM) on Masters of Teaching Degree 2015 Department of Instruction and Teacher Education: Member of Tenure and Promotion Ad-Hoc Committee 2014-2015 Department of Mathematics: FALL 2014 and SPRING 2015: Ran seminar every week for one hour for MATH 115 (Precalculus) Graduate Teaching Assistants (GTAs)
- 2014-2015 Department of Mathematics: Member of Mathematics Education Committee
- 2014-2015 Department of Instruction and Teacher Education: Member of Masters of Education Committee

## Community

2022-Present	Chess Club Coach for River Springs Elementary School, Irmo, SC
2022-Present	Established Pen-Pal Program Post-Covid with Lexington-Richland 5 Schools.