

# CURRICULUM VITAE SABA GERAMI

January 2022

*Office:* School of Education, Room 3104  
610 East University  
Ann Arbor, MI 48109-1259  
*Phone:* +1 (310) 407-9875  
*E-Mail:* sgerami@umich.edu

*Website:* [www.sgerami.com](http://www.sgerami.com)  
*LinkedIn Profile:* [www.linkedin.com/in/saba-gerami-a3aa2215a](http://www.linkedin.com/in/saba-gerami-a3aa2215a)  
*ORCID ID:* <https://orcid.org/0000-0002-1585-6413>

## EDUCATION

Ph.D. Candidate    Mathematics Education, University of Michigan, MI  
Advisor: Vilma Mesa  
Dissertation topic: Instructional tasks for teaching differentiation in calculus with inquiry-based learning (IBL) methods

M.S. 2015          Mathematics, California Polytechnic University- San Luis Obispo, CA

B.S. 2013          Mathematics, University of California- Los Angeles, CA

A.A. 2010          Liberal Arts and General Science, Santa Monica College, CA

## GRANTS AND FELLOWSHIPS

2021                Jones-Payne-Coxford Award, School of Education, University of Michigan, MI  
One semester of candidacy tuition, tuition fees, and health benefits

2019                Rackham Graduate Student Research Grant, University of Michigan, MI  
\$1,500.00

2017-2023        Rackham Merit Fellowship, University of Michigan, MI  
Four years of tuition and spring/summer terms of support

## RESEARCH EXPERIENCE

2017-Present     Research assistant, School of Education, University of Michigan  
Project: Undergraduate Teaching and Learning Mathematics with Open Software and Textbooks (UTMOST 1-3). Funded by NSF  
Principal Investigators: Robert Beezer, Thomas Judson, Vilma Mesa, Vilma Mesa, David Farmer, Susan Lynds, Kent Morrison  
Responsibilities include: mentoring undergraduate and graduate student research assistants, creating student knowledge test for Calculus I, creating grading instruments for coding Linear Algebra, Calculus I, and Abstract Algebra student knowledge tests, coding student knowledge tests, maintaining records and databases of student data, creating teacher reports for participating teachers, writing research reports (e.g., parts of the executive report, descriptive statistics, reliability scores, Cohen's kappa scores), working with a team to validate a qualitative instrument for coding students' open-ended responses regarding textbook use, and conducting regression analyses on student data.

- 2019 Co-authored the proposal for Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR), National Science Foundation (NSF). Proposal title: Mathematics, Equity, and Inquiry-based Learning (ME&IBL): Toward an empirical characterization of its variability-1234-5678 (PIs: Professor Patricio Herbst and Professor Vilma Mesa).
- 2017-2019 Research assistant, School of Education, University of Michigan  
 Project: Algebra Instruction @ Community College (AI@CC). Funded by NSF  
 Principal Investigators: Laura Watkins, Vilma Mesa, Irene Duranczyk, April Ström, Nidhi Kohli  
 Responsibilities include training and overseeing eight undergraduate research assistants for data collection across two community colleges nearby, creating protocols for data collection, collecting data, coding, and maintaining records, designing and leading professional development for community college mathematics instructors in Michigan.
- 2019 Research apprentice, School of Education, University of Michigan  
 Project: Developing the Theory of Communicating Mathematically Across Student Differences in the Work of Teaching. Funded by NSF  
 Principal Investigators: Deborah Ball, Maisie Gholson, Mark Hoover  
 Responsibilities included investigating conceptual and theoretical frameworks and analyzing data

## TEACHING EXPERIENCE

- 2021 Substitute instructor, Department of Mathematics, University of Michigan  
 Math 497/Educ 416: Middle School Math Curriculum and Content  
 Instructor: Nina White
- 2018 Teaching apprentice, Department of Mathematics, University of Michigan  
 Math 431: Geometry for Secondary Teachers  
 Instructor: Hanna Bennett
- 2018 Mathematics modeling instructor, Center for Talented Youth (CTY), John Hopkins University in partnership with Sandooq Al Watan, Abu Dhabi, UAE
- 2016-2017 Mathematics lecturer, California Polytechnic State University- San Luis Obispo, CA  
 Courses taught: Calculus I-III, business Calculus, Linear Analysis (combination of Linear Algebra and Differential Equations), and The Nature of Modern Math
- 2016-2017 Part-time mathematics instructor, Allan Hancock College, Santa Maria, CA  
 Courses taught: College Algebra and College Statistics
- 2017-2017 Math tutor, XYZ Textbooks/Math TV, San Luis Obispo, CA  
 Responsibilities included creating video explanations of examples in various subjects such as Algebra, pre-Calculus, Calculus for life sciences, Business Calculus
- 2014-2015 Mathematics Teaching Associate, California Polytechnic State University- San Luis Obispo, CA  
 Courses taught: pre-Calculus, Trigonometry
- 2012-2014 Mathematics and science tutor, 310 Tutors, Los Angeles, CA  
 Tutored K-12 and college students in various subjects and standardized tests
- 2012-2013 Multivariable Calculus Facilitator, Peer Math Learning Project, UCLA Mathematics Department, Los Angeles, CA

Responsibilities included holding sessions of math-studying and test-taking strategies, problem-solving, and material clarification with the students 3 times a week, creating worksheets and exam solutions in parallel to the lectures of course instructors

## AWARDS AND HONORS

- 2021 Jones-Payne-Coxford Award for demonstrating great potential in developing scholarship. in preliminary examinations for reaching doctoral candidacy, University of Michigan, MI
- 2019 Harold and Vivian Shapiro/John Malik/Jean Forrest Award, University of Michigan, MI
- 2016 Keynote Speaker, Middle Eastern Graduation Ceremony, California Polytechnic University- San Luis Obispo, CA
- 2015 Outstanding Teaching Associate Award, California Polytechnic University- San Luis Obispo, CA
- 2010 Honored by the chair leader of SMC Math Department as one of the best math tutors of the year

## PROFESSIONAL TRAINING

- 2021 Teaching for Equity and Inclusion in Remote Contexts, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2020 COMMunities for Mathematics Inquiry in Teaching (COMMIT), Leadership Development Workshop, led by Sally Blue and Patrick Rault, virtual.
- 2020 IBL Workshop on Courses for Future Elementary Teachers led by Todd Grundmeier, and Danielle Champney, The Academy of Inquiry Based Learning.
- 2019 Intersectionality at 30, Diversity, Inclusion, Justice and Equity (DIJE) conversations. School of Education, University of Michigan, MI
- 2019 “Doing the Work Our Souls Must Have”: Towards Anti-Racist Praxis. DIJE conversations. School of Education, University of Michigan, MI
- 2019 Teaching for Inclusion and Equity, Inclusive Teaching @ Michigan Series, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2019 Principles and Practices of Anti-Racist Pedagogy, Inclusive Teaching @ Michigan Series, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2019 Applying Principles of Transparency to Classroom Discussions, Inclusive Teaching @ Michigan Series, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2019 Disability and Accessible Teaching: Current Perspectives and Best Practices, Inclusive Teaching @ Michigan Series, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2019 Making Choices about How to Address the World Beyond Your Classroom, Inclusive Teaching @ Michigan Series, Center for Research on Learning and Teaching (CRLT), University of Michigan, MI
- 2018 Instrument Validation Workshop led by Matt Diemer, University of Michigan, MI
- 2015 Inquiry-Based Learning Workshop led by Stan Yoshinobu, Matthew Jones, and Carol Schumacher, San Luis Obispo, CA

## SELECTED PH.D. LEVEL COURSEWORK

- 2019                      Systemic Equation Modeling (SEM), EDUC 803, University of Michigan, MI  
Instructor: Dr. Matthew A. Diemer
- 2019                      Psychometric Theory: Classical and Latent Trait Models, EDUC 707, University of Michigan, MI  
Instructor: Dr. Matthew A. Diemer
- 2019                      Introduction to Systemic Functional Linguistics (SFL), EDUC 750, University of Michigan, MI  
Instructor: Dr. Mary Schleppegrell

## INVITED TALKS

- 2019                      What Do Teachers and Students do in Undergraduate Mathematics Inquiry-based Learning (IBL) Classrooms? A Systemic Functional Linguistic (SFL) Approach, SFL at UofM club, University of Michigan, MI

## PUBLICATIONS

### Peer-Reviewed Journal articles

Liakos, Y., **Gerami, S.**, Mesa, V., Judson, T., & Ma, Y. (2021). *How an inquiry-oriented textbook shaped a calculus instructor's planning*. International Journal of Mathematical Education in Science and Technology. 1-20.  
<https://doi.org/10.1080/0020739X.2021.1961171>

Mesa, V., Ma, Y., Quiroz, C., **Gerami, S.**, Liakos, Y., Judson, T., & Chamberlain, L. (2021). University instructors' use of questioning devices in mathematics textbooks: An instrumental approach. *ZDM–Mathematics Education*, 53(6), 1299-1311.

**Gerami, S.**, Leckrone, L., & Mesa, V. (2020). Exploring instructor questions in community college algebra classrooms and its connections to instructor knowledge and student outcomes. *MathAMATYC Educator*, 11(3), 34-39.

Lim, D., Kimani, P., Duranczyk, I., Watkins, L., **Gerami, S.**, Breit-Goodwin, M., & Cawley, A. (2020). Connecting across representations in community college algebra: lessons from the classroom. *MathAMATYC Educator*, 12(1), 12-20.

### Book Chapters

Mali, A., **Gerami, S.**, Ullah, A., & Mesa, V. (2019). Teacher questioning in problem solving in community college algebra classrooms. In P. Felmer, P. Liljedahl, & B. Koichu (Eds.), *Problem Solving in Patagonia* (pp. 317-335). Dordrecht, The Netherlands: Springer.

### Conference Proceedings

**Gerami, S.**, Mesa, V., & Liakos, Y. (2021). Using an inquiry-oriented calculus textbook to promote inquiry: A case in university calculus. In Inprasitha, M., Changsri, N., & Boonsena, N. (Eds.). (2021). *Proceedings of the 44th Conference of the International Group for the Psychology of Mathematics Education* (Vol.2). Khon Kaen, Thailand: PME.

**Gerami, S., & Mesa, V.** (2021). Teaching and learning with dynamic textbooks: Studying student uses at scale. In *Proceedings of the 14<sup>th</sup> International Congress on Mathematical Education (ICME-14)*. Shanghai, China.

**Gerami, S.** (2021). Examining instructor decision-making using two frameworks in the context of inquiry-based learning. In Karunakaran, S. S. & Higgins, A. (Eds.). (2021). *2021 Research in Undergraduate Mathematics Education Reports*.

**Gerami, S., & Mesa, V.** (2020). Investigating instructors' perceptions of IBL: A systemic functional linguistic approach. In Karunakaran, S. S., Reed, Z., & Higgins, A. (Eds.). (2020). *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education* (pp. 1135-1140). Boston, MA.

Mesa, V., **Gerami, S., & Liakos, Y.** (2020). Exploring the relationship between textbook format and student outcomes in undergraduate mathematics courses. In Karunakaran, S. S., Reed, Z., & Higgins, A. (Eds.). (2020). *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education* (pp. 317-335). Boston, MA.

### **Manuscripts in Preparation**

**Gerami, S., Mesa, V., Quiroz, C., & Chamberlain, L.** (2021). *Textbook for inquiry teaching: Case of Active Calculus*. Preparing for iJMEST.

**Gerami, S., & Mesa, V.** Investigating instructors' and students' roles in IBL: A systemic functional linguistic approach. Preparing for IJRUME.

## **PRESENTATIONS IN CONFERENCES**

Quiroz, C., **Gerami, S., Mesa, V.** (2022, February). Students' utilization schemes of questioning devices in undergraduate mathematics dynamic textbooks. European Society for Research in Mathematics Education Conference (CERME12), virtual, Bolzano, Italy.

**Gerami, S.** (2022, February). Decisions, decisions: Mathematics instructors' decision-making about content and pedagogy when teaching with IBL. Research in Undergraduate Mathematics Education (SIGMAA-RUME), Boston, Massachusetts.

**Gerami, S., Mesa, V., & Liakos, Y.** (2021, July). Using an inquiry-oriented calculus textbook to promote inquiry: a case in university calculus. The 44th Conference of the International Group for the Psychology of Mathematics Education (PME). Khon Kaen, Thailand: Khon Kaen University and Technion, Israel Institute of Technology.

Research on Teaching Mathematics in Undergraduate Settings Research Group (RTMUS), Mesa, V., & **Gerami, S.** (2021, July). Teaching and learning with dynamic textbooks: Studying student uses at scale. International Congress on Mathematical Education (ICME-14), Shanghai, China.

**Gerami, S., & Mesa, V.** (2020, February). Investigating instructors' perceptions of IBL: A systemic functional linguistic approach. Research in Undergraduate Mathematics Education (SIGMAA-RUME), Boston, Massachusetts.

Mesa, V., **Gerami, S., & Liakos, Y.** (2020, February). Exploring the relationship between textbook format and student outcomes in undergraduate mathematics courses. Research in Undergraduate Mathematics Education (SIGMAA-RUME), Boston, Massachusetts.

Lim, D., & **Gerami, S.** (2019, November). Connecting across representations in algebra instruction. AMATYC Annual Conference, Milwaukee, Wisconsin.

**Gerami, S.**, & Mesa, V. (2019, June). What do you mean when you say IBL? A systemic functional linguistic approach. National Inquiry-Based Learning and Teaching Conference, Sheraton Denver Downtown Hotel, Denver, Colorado.

Leckrone, L., **Gerami, S.**, & Mesa, V. (2019, March). Exploring the impact of instructor questions in community college algebra classrooms. Research in Undergraduate Mathematics Education (SIGMAA-RUME), Renaissance Oklahoma City Convention Center Hotel, Oklahoma City, Oklahoma.

**Gerami, S.** (2019, March). Teacher intellectual risk-taking: towards student-centered mathematics classroom. Graduate Student Community Organization (GCSO) Graduate Student Conference, University of Michigan, Ann Arbor, Michigan.

## PROFESSIONAL SERVICE

### Journal Article Reviewer

2021	ZDM – Mathematics Education
2020-2021	Educational Studies in Mathematics (ESM)
2019	Eurasia journal of mathematics, Science and Technology Education

### Conference Proposal and Proceeding Reviewer

2021	CERME12 (European Society for Research in Mathematics Education Conference, ERME Conferences)
2020-2022	SIGMAA-RUME
2019	International Congress on Mathematical Education (ICME-14), Shanghai, China.
2018	Poster presentation judge, 2018 spring research symposium, Undergraduate Research Opportunity Program (UROP), University of Michigan

### Conference Organizer

2019-2020	Conference planning member, Graduate Student Research Conference (GSRC), University of Michigan
-----------	---

### Other

2018-2020	Organizing prospective graduate students' campus visit School of Education, University of Michigan, Ann Arbor, MI
2019	Steering committee member, Community College Interdisciplinary Research Forum (CCIRF), University of Michigan
2018	Doctoral student honorary panelist, Mathematics department, California Polytechnic State University- San Luis Obispo
2018	Volunteer panelist, Incoming-student Orientation, School of Education, University of Michigan, Ann Arbor, MI
2011	Volunteer teacher, Princeland Academy, Tema, Ghana Taught a supporting math and science class in a middle school in an extremely underprivileged district in order to increase the high school admission rate and lower the dropout rate for students from low-income families

2008-2010 Volunteer mathematics and science tutor, EOPS (The Extended Opportunity Programs and Services) Office and Math Lab, Santa Monica College, Santa Monica, CA  
Responsibilities included tutoring students in all levels of lower division mathematics, including Geometry, Pre-Calculus, Calculus, Differential Equations, and Linear Algebra, counseling students with economical and educational disadvantages, assisted in holding student seminars and orientations in order to ease their path to success

## **PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS**

AERA (American Educational Research Association), North America

AMATYC (American Association of Two-Year Colleges), USA

MAA (Mathematical Association of America), USA

NCTM (National Council of Teachers of Mathematics), USA

PME (International Group for the Psychology of Mathematics Education), North America

SIGMAA-RUME (Special Interest Group of the MAA on Research in Undergraduate Mathematics Education), USA

## **LANGUAGE SKILLS**

English and Farsi: speaking, reading, writing

## **COMPUTER LANGUAGES**

Microsoft Office, LaTeX, MPlus, Stata, C++ (beginner)