SIQI HUANG

Ph.D. Student in Mathematics Education

shuang123@berkeley.edu ⋄ Berkeley, CA ⋄ (626) 265-2305 ⋄ https://bse.berkeley.edu/siqi-huang

EDUCATION

Ph.D. in Mathematics Education *Aug 2021 - Present*
University of California, Berkeley Berkeley, CA
Ph.D. Advisor: Alan H. Schoenfeld (Felix Klein, the highest distinction in math education)

M.A. in Mathematics *Aug 2022 - Present*
University of California, Berkeley Berkeley, CA
M.A. Advisor: Richard Borcherds (Fields Medal, the highest distinction in mathematics)

B.S. in Mathematics *Sep 2019 - Mar 2021*
University of California, Los Angeles Los Angeles, CA
College Honors; Departmental Honors (Mathematics); Latin Honors (Cum Laude)

A.S. in Mathematics *Aug 2017 - Jun 2019*
Pasadena City College Pasadena, CA
Student of the Year; Edna Plummer Scholarship (recommended by the department, the only awardee)

PUBLICATIONS

· Schoenfeld, A., Fink, H., Zuñiga-Ruiz, S., **Huang, S.**, Wei, X, Chirinda, B. (2023). *Helping Students Become Powerful Mathematical Thinkers: Case Studies of Teaching for Robust Understanding.* New York: Routledge.

· **Huang, S**. (2023). Developing a Tool for Measuring Student Orientations with Respect to Understanding in Mathematical Learning. In T. Lamberg & D. Moss (Eds.), *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Vol. 2, pp. 49-58. University of Nevada, Reno.

· **Huang, S**. (2022). Bootstrapping Students' Emergent Ideas: Case Study of Students' Guided (Re)Invention of Abstract Math Concepts. *US-China Education Review A, 12*(6), 210-230. DOI: 10.17265/2161-623X/2022.06.002

· **Huang, S**. (2022). Mathematical Problem Solving with Understanding. In A. E. Lischka, , E. B. Dyer, R. S. Jones, J. Lovett, J. F. Strayer, S. Drown (Eds.), *Proceedings of the forty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, pp. 808-812. Middle Tennessee State University.

PRESENTATIONS

· Dosalmas, M., Weltman, A., **Huang, S.**, Williams, S., Butler, T., Collins, C., Massie, R., Ebanks, R., Liner, K. (Oct 2023). *Project-based Algebra: Power, creativity, success.* Interactive session presented at NCTM (National Council of Teachers of Mathematics) Research Conference, Marriott Metro Center, Washington, DC.

· **Huang, S**. (Aug 2022). *Student orientations in mathematical problem solving.* Accepted for presentation at the 12th Young European Researchers in Mathematics Education (YERME) Summer School (canceled due to COVID-19), Linz, Austria.

· **Huang, S**. (Mar 2020). *On Finding Integral Basis.* Brief research report presented at Presentation Colloquium for Directed Reading Program (Mathematics), University of California, Los Angeles, CA.

EXPERIENCE

Graduate Student Researcher (XQ Math)
Jan 2023 - Present
TCWGlobal, XQ Institute
Berkeley, CA

· Develop research questions and hypotheses related to student experience in a project-based curriculum.
· Design research studies, including selecting appropriate data collection and analysis methods.
· Interpret findings and make recommendations for improvements to XQ math and education practices.

Graduate Student Instructor
Jan 2022 - Dec 2022
University of California, Berkeley
Berkeley, CA

· Created syllabus, prepared and delivered daily lectures, designed and graded exams, assigned homework, and held office hours for Math 10A: Methods of Mathematics - Calculus, Statistics, and Combinitorics.
· Led weekly discussions, designed practice problems, held office hours, attended training sessions, test-drove and graded exams for Math 1A: Calculus and Math 16A: Analytic Geometry and Calculus.

Graduate Student Researcher (TRU Framework)
Aug 2021 - Dec 2022
University of California, Berkeley
Berkeley, CA

· Analyzed video-recordings of classroom teaching using Teaching for Robust Understanding framework.
· Interpreted findings and made recommendations for improvements in mathematics education practices.
· As a co-author, collaborated with faculty members and other researchers to publish a case-study book.

Academic Talent Development Program
Summer 2022, Summer 2023
University of California, Berkeley
Berkeley, CA

· Develop algebra-related course materials and activities to engage advanced middle-school students.
· Assess student progress and provide detailed feedback to students and parents on academic performance.
· Mentor teaching assistants and support them in developing mathematical and teaching competency.

Research Mentor for Undergraduates
Mar 2022 - Dec 2022
University of California, Berkeley
Berkeley, CA

· Mentored undergraduates in conducting exploratory research study on mathematical problem solving.
· Guided qualitative data analysis and offered supplementary readings to ground their study theoretically.
· Led weekly research meetings to discuss mentees' progress and modeled respectful peer-review practices.

Mathematics Counselor/Instructor
Jun 2020 - Aug 2021
Ross Mathematics Program
Remote

· Designed and facilitated discussions on Number Theory and Abstract Algebra, focusing on helping advanced high-school students struggle productively and discover connections among various ideas.
· Developed and delivered lectures on Mathematical Cryptography, advised Junior Counselors as they developed leadership skills, and supported them on advanced (i.e., undergraduate) math courses.

ACADEMIC ACHIEVEMENTS

· Barbara Y. White Bequest (2022, 2023) - Outstanding research potential
· AMATYC Mathematics Contest (2019) - Ranked 6th (as a team) in the U.S.
· Octavia E. Blutler Memorial Scholarship (2019) - Among 12 recipients out of 41,000 students.
· Hixon Teacher Preparation Program Scholarship (2019) - Only recipient outside the program.
· Robert Westerbeck Scholarship (2018, 2019) - Outstanding academic achievement.