

Timothy M. Wertz

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EDUCATION

- 2015 **Ph.D. in Mathematics.**, *Department of Mathematics*, University California, Davis, USA.
2010 **M.A. in Mathematics**, *Department of Mathematics*, San Francisco State University, USA.
2006 **B.A. & B.S. in Mathematics, Physics, Foreign Service**, Alma College, Michigan, USA.

RESEARCH INTERESTS

Harmonic Analysis: frames, Gabor systems, Fourier series of operators; **Operator Theory:** spectral invariance, eigenvector localization, Banach algebras of localized operators; **Random Matrix Theory:** random Schrödinger operators, the empirical spectral distribution of localized random matrices; **Mathematics Education** quantitative literacy, flipped classrooms, team-based learning; student motivation

EMPLOYMENT HISTORY

- January 2015 – Present **Yale-NUS College**, *Division of Science*, **Senior Lecturer** (July 2021 – Present), Lecturer (July 2016 – June 2021), Postdoctoral Teaching Fellow (July 2015 – June 2016), Instructor (January 2015 – June 2015).
Taught and developed undergraduate courses, supervised undergraduate research, and provided academic advising. Conducted independent and collaborative research. Served as the course facilitator for the Common Curriculum course Quantitative Reasoning
- July 2020 – Present **Yale-NUS College**, *Centre for Teaching and Learning*, **Coordinator for Quantitative Resources and Peer Tutoring**.
Hired and supervised peer tutors in Computer Science, Economics, Mathematics, and Statistics. Developed strategies for promoting the acquisition of quantitative skills by Yale-NUS students.
- Summer 2012 & 2013 **Instructor**, *Department of Mathematics*, University of California, Davis, USA.
Introduced students to the basics of logic and proof-writing in the context of real analysis and set theory. Planned and delivered lectures. Wrote, administered, and graded assignments, quizzes, and exams.
- Summer 2011 **Instructor**, *Academy of Art University*, Sacramento, CA, USA.
Instructed art, design, and culinary arts students in remedial mathematics, including fractions and basic algebra. Planned and delivered lectures. Wrote, administered, and graded assignments, quizzes, and exams.
- September 2010 – June 2011 **Graduate Teaching Assistant**, *Department of Mathematics*, University of California, Davis, USA.
Held weekly discussion sections and office hours for calculus and introductory real analysis. Graded homework assignments and exams.
- Summer 2010 **Instructor**, *Summer Bridge Program*, San Francisco State University, USA.
Provided remedial mathematics instruction to recently graduated high school seniors from disadvantaged backgrounds in order to prepare them for university-level coursework. Planned and delivered lectures. Wrote, administered, and graded assignments, quizzes, and exams. Supervised teaching assistants.
- August 2008 – May 2009 **Graduate Teaching Assistant**, *Department of Mathematics*, San Francisco State University, USA.
Planned and delivered lectures; wrote, administered, and graded assignments, quizzes, and exams for students in remedial algebra. Held weekly discussion sections and office hours for calculus students.

- May 2006 – **Assistant Director of Admissions**, *Alma College*, Alma, Michigan, USA.
July 2008 Met with high-school students and their families to guide them through the admissions process. Gave recruitment presentations to groups of students, parents, and guidance counselors. Reviewed applications and made admissions decisions. Supervised student workers.

PUBLICATIONS

- In preparation Scott Chua, Guillem Riambau, T.W., *Do grades enhance learning? Evidence from a natural experiment in a liberal arts setting*.
- 2021 Thomas Strohmer, T.W., *Almost eigenvalues and eigenvectors for the almost Mathieu operator.*, *Excursions in Harmonic Analysis*, Volume 6.
- 2015 Ilya Krishtal, Thomas Strohmer, T.W., *Localization of matrix factorizations*, *Foundations of Computational Mathematics*, Volume 15, Issue 4.
- 2013 Alex Schuster, T.W., *Interpolation on non-uniformly separated sequences in a weighted Bergman space.*, *Journal of the Egyptian Mathematical Society*, Volume 21, Number 2.

SERVICE, OUTREACH, AND COMMUNITY INVOLVEMENT

- January 2020 – Sciences Strategic Committee at Yale-NUS
present
- Fall 2013 – Reviewer for Mathematical Reviews
present
- July 2020 – Common Curriculum Review Committee at Yale-NUS
June 2021
- August 2017 – Course Facilitator for Quantitative Reasoning at Yale-NUS
June 2021
- January 2011 – Northern California American Regions Math League (NorCal ARML) Coach
June 2012
- January 2011 – Oakland East-Bay Math Circle (OEBMC) Instructor
May 2012
- September 2009 – San Francisco Math Circle Instructor
May 2010

CONFERENCES, MEETINGS, AND PRESENTATIONS

- April 2017 STEM Singapore Innovations Symposium, Yale-NUS College, Singapore. Organizer.
- February 2014 February Fourier Talks, Baltimore, MD. Poster.
- October 2013 West Coast Operator Algebra Seminar, Davis, CA. Presentation.
- April 2013 Western Sectional Meeting of the AMS, Boulder, CO. Presentation.
- February 2013 February Fourier Talks, Baltimore, MD. Poster.
- May 2010 Graduate Research and Creative Works Showcase, San Francisco, CA. Poster.
- March 2010 NSF GK-12 Annual Meeting, Washington, DC. Poster.