

SHIWEN ZHANG

CURRICULUM VITAE

Department of Mathematics, Michigan State University
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Research Interests

- Mathematical Physics, Dynamical Systems, Spectral Theory, Quantum Mechanics, Harmonic Analysis, Partial Differential Equations

Employment

- 2016-present: Visiting Assistant Professor (Postdoc) in the Department of Mathematics at the Michigan State University, work with Professor Alexander Volberg.

Education

- **09/2013-06/2016, University of California, Irvine** — Irvine, CA
Ph.D. Mathematics. Advisor: Svetlana Jitomirskaya
- **09/2009-06/2013, Nanjing University** — Nanjing, China
Graduate Student; transferred to UC Irvine, September 2013. Advisor: Jiangong You
- **09/2009-06/2010, BICMR, Peking University** — Beijing, China
Exchange graduate student program
- **09/2005-06/2009, Nanjing University** — Nanjing, China
B.S. Mathematics, June 2009

Honors and Awards

- Kovalevsky Outstanding PhD Thesis Award, UC Irvine 2016
- Euler Award for Outstanding Promise as a Graduate Student, UC Irvine 2014
- Samsung scholarship, Nanjing University 2007
- National Encouragement scholarship, Nanjing University 2006

Papers and Preprints

- S. Jitomirskaya, S. Zhang, *Quantitative continuity of singular continuous spectral measures and arithmetic criteria for quasiperiodic Schrödinger operators*. arXiv:1510.07086.
- S. Zhang, *Mixed spectral types for one frequency discrete quasiperiodic Schrödinger operator*. Proc. Amer. Math. Soc. 144, 2603-2609 (2016)
- J. You, S. Zhang, Q. Zhou, *Point spectrum for the quasiperiodic long range operators*. J. Spectr. Theory 4, 769-781 (2014)
- J. You, S. Zhang, *Hölder Continuity of the Lyapunov Exponent for Analytic Quasiperiodic Schrödinger Cocycle with Weak Liouville Frequency*. Ergodic Theory Dynam. Systems 34, 1395-1408 (2014)
- S. Zhang, Z. Zhao, *Diffusion Bound and Reducibility for Discrete Schrödinger Equations with Tangent Potential*. Frontiers of Mathematics in China 7, 1213-1235 (2012)

Teaching Experience

- **University of California, Irvine** — Irvine, CA
Teaching Assistant
 - Elementary Diff Equations Winter 2016
- **University of California, Irvine** — Irvine, CA
Instructor
 - UCI Math 2B (Calculus 2). Course Website: <https://eee.uci.edu/15f/44350> Fall 2015
- **University of California, Irvine** — Irvine, CA
Teaching Assistant
 - Math of Finance Summer 2015
 - UCI Math 2B (Calculus 2) Fall 2014
- **Nanjing University** — Nanjing, China
Bachelor's Thesis Instruction Assistant
 - Leader of undergraduate student thesis discussion group Spring 2012, Spring 2013
I assisted Professor You in directing the B.S. Thesis research of 10 students over 2012-2013.

Invited Conference Talks

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- AMS Special Session at Joint Mathematics Meeting, Seattle, WA Jan 6-9 2016
 - Special session at AMS Fall Western Sectional Meeting, Fullerton, CA Oct 24-25 2015
 - Workshop: Spectral Properties of Quasicrystals via Analysis, Dynamics, and Geometric Measure Theory, BIRS, Oaxaca, Mexico Sep 27-Oct 2 2015
 - Almost Periodic and Other Ergodic Problems, Isaac Newton Institute, University of Cambridge, UK Mar 20-May 20 2015
 - 33rd Annual Western States Math-Physics Meeting, Caltech, Pasadena, CA Feb 16-17 2015
 - Special Session at USA-Uzbekistan Conference on Analysis and Mathematical Physics, CSUF, Fullerton, CA May 20-24 2014

Invited Seminar Talks

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- Dynamical Systems and Fractal Geometry Seminar, Mathematics Morningside center, CAS, Beijing, China. May 22 2015
 - Dynamical Systems Seminar, Nanjing University, Nanjing, China. July 20 2014
 - Geometry-Analysis Seminar, Rice University, Houston, Texas. April 23 2014

Teaching/General audience Talks

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- Department seminar, Loyola Marymount University, Los Angeles, CA. Nov 5 2015
 - Colloquium at CSULB, Long Beach, CA. Mar 13 2015
 - Geometry and Topology Seminar, CSUF, Fullerton, CA. Feb 20 2015

Talks at UCI

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- Learning Seminar: *Examples of Discontinuity of Lyapunov Exponent I,II.* Feb 6, 13 2015
 - Learning Seminar: *Large Deviation Theory I,II.* Nov 7,14 2014
 - Math Physics Seminar: *Spectral Packing Dimension.* April 17 2014
 - Learning Seminar: *Kotani Theory I,II,III.* Nov 8,15,22 2013
 - Math Physics Seminar: *Point spectrum for quasiperiodic long range operators.* Nov 17 2013

Last updated: Thursday 18th August, 2016