Chenxi Wu

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Education and Employment

B. Sc. in Mathematics, Peking university — July 2010.
Graduate study in Cornell university — August 2010-August 2016
Advisor: John Smillie
Thesis: Translation surfaces: saddle connections, triangles and covering constructions
Member of MSRI — August 2016-Oct 2016.
Postdoc at MPIM — Nov 2016-August 2017.

Publications

- Chenxi Wu. The relative cohomology of abelian covers of the flat pillowcase. *Journal of Modern Dynamics*, doi:10.3934/jmd.2015.9.123
- Chenxi Wu. Deloné property of the holonomy vectors of translation surfaces. *Israel Journal of Mathematics*, doi: 10.1007/s11856-016-1357-y
- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Constructing pseudo-Anosov maps with given dilatations. *Geometra Dedicata*, doi: 10.1007/s10711-015-0089-1
- Chenxi Wu. Lattice surfaces and smallest triangle. *Geometra Dedicata*, doi: 10.1007/s10711-016-0191-z

Work in preparation

- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Approximations to infinite type pseudo-Anosov maps
- Farbod Shokrieh and Chenxi Wu. A Kazhdan-type theorem for metric graphs
- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Is a typical bi-Perron number a pseudo-Anosov dilatation?
- Yingjie Guo, Chenxi Wu, Ao Li etc. A gene-based permuted extreme gradient boost method for detecting gene-gene interaction of qualitative traits
- Lucien Clavier, Anja Randecker and Chenxi Wu. Rotational component spaces for infinite-type translation surfaces. *arXiv:* 1412.0633

Grants

KHYS Visiting Researcher Scholarship — Summer 2014
Graduate Fellowship, Cornell University — 2010-2011

Talks

- Singularities of infinite translation surfaces, Bugcat conference, Binghamton University, November 2015
- (With Ahmad Rafiqi) Building pseudo-Anosov maps, Young people seminar, Dynamical Developments: a conference in Complex Dynamics and Teichmüller theory Jacobs university, August 2015
- Building pseudo-Anosov maps, Max Planck Institute of Mathematics, August 2015
- End periodic maps and flat surfaces, Dynamics seminar, Cornell University, April 2015
- Building pseudo-Anosov maps, Bugcat conference, Binghamton University, October 2014
- Singularities of infinite translation surfaces, Dynamics seminar, Cornell University, October 2014
- Characterization of Bouw-Möller surfaces, Karlsruhe Institute of Technology, July 2014
- Horocycle orbit closures in strata, Ergodic theory seminar, UIUC, April 2014
- The affine group action on the cohomology of abelian covers of the pillowcase, Postdoc and Graduate student seminar, ICERM, October 2013

Conference and Workshops

- Cycles on Moduli Spaces, Geometric Invariant Theory, and Dynamics, ICERM, Providence, 08/2016
- Dynamical Developments: a conference in Complex Dynamics and Teichmüller theory, Jacobs University, Bremen, 08/2015
- Dynamics and Geometry in the Teichmüller Space, CIRM, Marseille, 07/2015
- Advances in Homogeneous Dynamics, MSRI, Berkeley, 05/2015
- Geometric Structures in Low-Dimensional Dynamics, ICERM, Providence, 11/2013

- Topology, Geometry and Group Theory, Informed by Experiment, ICERM, Providence, 10/2013
- Exotic Geometric Structures, ICERM, Providence, 09/2013
- Dynamics on parameter spaces 2013, Sde-Boker, 01/2013
- The horocyclic flow in different situations, CIRM, Marseille, 04/2012

Teaching and Outreach

Math Explorer's Club	March 2016
TA of Linear Algebra for Engineers	Spring 2016
Instructor of Calculus I	Spring 2015
TA of Differential Equations	Fall 2014
TA of Multivariable Calculus for Engineer	Spring 2014
TA of Totally Awesome Math	Spring 2014
TA of Multivariable Calculus	Spring 2013
TA of Honors Calculus II	Fall 2012
Volunteering at Math Club of Ithaca High School	Fall 2011

Programming languages

C, Python, C++