Chenxi Wu

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https://arxiv.org/a/wu_c_3.html

Education and Employment

- Hill Assistant Professor at Rutgers   September 2017-

- Postdoc at MPIM   Nov 2016-July 2017

- Member of MSRI   August 2016-Oct 2016

- Ph. D in Mathematics, Cornell university   August 2016.
  Advisor: John Smillie
  Thesis: Translation surfaces: saddle connections, triangles and covering constructions

- B. Sc. in Mathematics, Peking university   July 2010.

Publications

- Hyungryul Baik, Farbod Shokrieh, Chenxi Wu. Limits of canonical forms on towers of Riemann surfaces *J. Reine Angew. Math. (Crelles Journal)* 2019. doi: 10.1515/crelle-2019-0007.

- Farbod Shokrieh and Chenxi Wu. Canonical measures on metric graphs and a Kazhdan's theorem *Invent. Math.* 215(3), 819-862, 2019. doi: 10.1007/s00222-018-0838-5

- Hyungryul Baik, Chenxi Wu, KyeongRo Kim, and TaeHyouk Jo. An algorithm to compute Teichmüller polynomial from matrices *Geometriae Dedicata* 2019 doi: 10.1007/s10711-019-00450-4

- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Is a typical bi-Perron number a pseudo-Anosov dilatation? *Ergodic Theory and Dynamical Systems* 39(7), 1745-1750, 2019. doi: 10.1017/etds.2017.109

- Chenxi Wu. Lattice surfaces and smallest triangle. *Geometriae Dedicata*, 187(1), 107-121, 2017. doi: 10.1007/s10711-016-0191-z

- Lucien Clavier, Anja Randecker and Chenxi Wu. Rotational component spaces for infinite-type translation surfaces. *Geometriae Dedicata* 201(1), 57-80, 2019. doi: 10.1007/s10711-018-0381-y

- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Constructing pseudo-Anosov maps with given dilatations. *Geometriae Dedicata*, 180(1), 39-48, 2016. doi: 10.1007/s10711-015-0089-1

- Chenxi Wu. Deloné property of the holonomy vectors of translation surfaces. *Israel Journal of Mathematics*, 214(2), 733-740, 2016. doi: 10.1007/s11856-016-1357-y

- Chenxi Wu. The relative cohomology of abelian covers of the flat pillowcase. *Journal of Modern Dynamics*, 9, 123-140, 2015. doi:10.3934/jmd.2015.9.123

- Yingjie Guo, Chenxi Wu, et al. Gene-Based Nonparametric Testing of Interactions Using Distance Correlation Coefficient in Case-Control Association Studies *Genes* 9(12), 2018. doi: 10.3390/genes9120608

- Yingjie Guo, Chenxi Wu, et al. Combining Sparse Group Lasso and Linear Model improves power to detect generic variants underlying quantitative traits *Frontiers in Genetics*, 2019 doi: 10.3389/fgene.2019.00271

Preprints

- Hyungryul Baik, Hyunshik Shin and Chenxi Wu. An upper bound on the asymptotic translation length on the curve graph and fibered faces *arXiv:* 1801.06638

- Harrison Bray, Diana Davis, Kathryn Lindsey and Chenxi Wu. The shape of Thurston's Master Teapot *arXiv:*1902.10805

- Hyungryul Baik, Eiko Kin, Hyunshik Shin and Chenxi Wu. Asymptotic translation length and normal generation for the fibered cone *arXiv:*1909.00974

- Kathryn Lindsey and Chenxi Wu. A characterization of Thurston's Master Teapot *arXiv:*1909.10675

Grants

- AMS MRC   Summer 2017
- KHYS Visiting Researcher Scholarship   Summer 2014
- Graduate Fellowship, Cornell University   2010-2011

Talks

- Kazhdan's theorem for metric graphs, AMS Sectional Meeting, Binghamton NY, October 2019

- Kazhdan's theorem for metric graphs, NY Geometry Seminar, CUNY, October 2019

- Wroten-type coding for small cancellation groups, ICTP, Trieste, Italy, September 2019

- Kazhdan's theorem for metric graphs, Geometry/Topology Fair, KAIST, August 2019

- Kazhdan's theorem for metric graphs, GAGTA, Bar Ilan University, Israel, May 2019

- Canonical metric on surfaces and manifolds, Topology seminar, KAIST, August 2018

- Invertable coding on Kleinian groups, GAGTA, KIAS, July 2018

- An upper bound on the asymptotic translation length on the curve complex, Dynamics seminar, CUNY, April 2018

- Dynamics of generalized beta maps, Dynamics seminar, Boston College, March 2018

- Dynamics of generalized beta maps, MRC special section of JMM, San Diego, January 2018.

- An upper bound on the asymptotic translation length on the curve complex, Dynamics seminar, CUNY, November 2017

- Entropy of generalized beta maps, KAIST, August 2017

- Canonical metric on graphs, KAIST, August 2017

- Canonical metric on graphs, MPIM Oberseminar, December 2016

- 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

- Building pseudo-Anosov maps, Bugcat conference, Binghamton 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

Teaching and Outreach

Teaching

- Introduction to mathematical reasoning   Spring 2019
- Introduction to Applied Mathematics   Fall 2018
- Linear Optimization   Spring 2018
- Elementary Linear Algebra   Fall 2017
- Elementary PDE   Fall 2017
- Calculus I   Spring 2015

TA

- Linear Algebra for Engineers   Spring 2016
- Differential Equations   Fall 2014
- Multivariable Calculus for Engineer   Spring 2014
- Totally Awesome Math   Spring 2014
- Multivariable Calculus   Spring 2013
- Honors Calculus II   Fall 2012

Summer School and Outreach

- Introduction on L^2 invariants   KAIX Summer School 2019
- F.E.M.M.E.S. in University of Michigan (as TA)   Fall 2017
- Math Explorer's Club in Cornell   March 2016
- Math Club of Ithaca High School   Fall 2011