

Chenxi Wu

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<https://wuchenxi.github.io>

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

Education and Employment

- Assistant Professor at UW Madison, Sept 2020-
- Hill Assistant Professor at Rutgers University-New Brunswick, Sept 2017-May 2020
- Postdoc at MPIM, Nov 2016-July 2017
- Member at MSRI, August 2016-Oct 2016
- Ph. D in Mathematics, Cornell University, August 2016, Advisor: John Smillie
- B. Sc. in Mathematics, Peking University, July 2010

Research Publications

- Chenxi Wu. The relative cohomology of abelian covers of the flat pillow-case. *Journal of Modern Dynamics*, 9(1), 123, 2015. doi:10.3934/jmd.2015.9.123, 18 pages.
- Chenxi Wu. Delone property of the holonomy vectors of translation surfaces. *Israel Journal of Mathematics*, 214(2), 733-740, 2016. doi: 10.1007/s11856-016-1357-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. Lattice surfaces and smallest triangle. *Geometriae Dedicata*, 187(1), 107-121, 2017. doi: 10.1007/s10711-016-0191-z
- Lucien Clavier, Anja Randecker, Chenxi Wu. Rotational component spaces for infinite-type translation surfaces. *Geometriae Dedicata*, 201(1), 57-80, 2019
- Hyungryul Baik, Ahmad Rafiqi and Chenxi Wu. Is a typical bi-Perron number a pseudo-Anosov dilatation? *Ergodic Theory and Dynamical System*, 39(7), 1745-1750, 2019
- Farbod Shokrieh and Chenxi Wu. Canonical measures on metric graphs and a Kazhdan's theorem, *Invent. Math.*, 215(3), 819-862, 2019

- Hyungryul Baik, Farbod Shokrieh and Chenxi Wu. Limits of canonical forms on towers of Riemann surfaces, *Crelle*, 2020(764), 287-304, 2020
- Hyungryul Baik and Chenxi Wu. An algorithm to compute Teichmüller polynomial from matrices, *Geometriae Dedicata*, 204(1), 175-189, 2020
- Hyungryul Baik, Hyunshik Shin, Chenxi Wu. An upper bound on the asymptotic translation lengths on the curve graph and fibered faces, to appear in *Indiana University Math Journal*, Accepted 2021, 13 pages.
- Harrison Bray, Diana Davis, Kathryn Lindsey, Chenxi Wu. The shape of Thurston's Master Teapot, *Advances in Mathematics*, 377, 107481. 2021, 26 pages.
- Hyungryul Baik, Sebastian Hensel, Chenxi Wu. Foliation from left orders, to appear in *J. Korean Math. Soc.* Accepted 2021, 13 pages.
- Hyungryul Baik, Eiko Kin, Hyunshik Shin, Chenxi Wu. Asymptotic translation length and normal generation of for the fibered cone, to appear in *Algebraic and Geometric Topology*, Accepted 2021, 32 pages
- Kathryn Lindsey, Chenxi Wu. A Characterization of Thurston's Master Teapot, to appear in *Ergodic Theory and Dynamical Systems*. Accepted 2022, 23 pages

Research Preprints

- Hyungryul Baik, Dongryul M. Kim, Chenxi Wu, Minimal asymptotic translation lengths on curve complexes and homology of mapping tori, arXiv:2107.09018, 17 pages
- Hyungryul Baik, Dongryul M. Kim, Chenxi Wu, On the asymptotic translation lengths on the sphere complexes and the generalized fibered cone, arXiv:2011.08034, 27 pages
- Kathryn Lindsey, Giulio Tiozzo, Chenxi Wu, Master Teapots and Entropy Algorithms for the Mandelbrot Set, arXiv:2112.14590, 53 pages
- Hyungryul Baik, Dongryul M. Kim, Chenxi Wu, Reducible normal generators for mapping class groups are abundant, arXiv:2112.13726, 11 pages

Grants

Simons Collaboration Grant, 2021-2026

Teaching and Outreach

Spring 2022: Modern Algebra

Fall 2021: Introduction to Dynamics

Spring 2021: Differential Geometry

Fall 2020: Numerical Analysis

Spring 2020: Statistics

Fall 2019: Elementary Linear algebra

Spring 2019: Introduction to Mathematical reasoning

Fall 2018: Introduction to Applied Mathematics

Spring 2018: Instructor for linear optimization

Fall 2017: Instructor for Elementary linear algebra and Introductory PDE

Spring 2015: Calculus I

Madison Experimental Math Lab, Spring 2022, Fall 2022

Madison Math Circle, May 2022

Math Explorer's Club at Cornell, March 2016

Math Club at Ithaca High School, Fall 2011