

BELLA TOBIN

bellatobin@gmail.com

PROFESSIONAL EXPERIENCE

- Post-Doctoral Fellow** *2019-present*
Oklahoma State University, Stillwater, OK
- Graduate Teaching Assistant** *2013-2019*
University of Hawai'i at Mānoa, Honolulu, HI

EDUCATION

- Ph.D., University of Hawai'i at Mānoa** 2019
Advisor: Prof. M. Manes
Dissertation: *Belyi Maps and Bicritical Polynomials*
- M.S., University of Hawai'i at Mānoa** 2017
- B.S., University of Vermont** 2013

RESEARCH INTERESTS

Arithmetic Dynamics, Algebraic Number Theory, Arithmetic Geometry

PAPERS

1. Angelica Babei, Lea Beneish, Manami Roy, Holly Swisher, Bella Tobin, and Fang-Ting Tu, *Generalized Ramanujan-Sato series arising from modular forms*, preprint (2022), available at arXiv: 2202.13253
2. John Doyle, Paul Fili, and Bella Tobin, *Stochastic equidistribution and generalized adelic measures*, preprint (2021), available at arXiv:2111.08905
3. Jacqueline Anderson, Michelle Manes, and Bella Tobin, *Some applications of dynamical Belyi polynomials*, preprint (2021), available at arXiv: 2109.03339
4. Jacqueline Anderson, Michelle Manes, and Bella Tobin, *Cubic post-critically finite polynomials defined over \mathbb{Q}* , Proceedings of the Fourteenth Algorithmic Number Theory Symposium (Steven Galbraith, ed.), vol. 4(1), Open Book Series, no. 1, Mathematical Sciences Publishers, 2020, (DOI: 10.2140/obs.2020.4-1), pp. 23–38
5. Bella Tobin, *Belyi Maps and Bicritical Polynomials*, ProQuest LLC, Ann Arbor, MI, 2019, Thesis (Ph.D.)–University of Hawai'i at Manoa. 4035631
6. Michelle Manes, Gabrielle Melamed, and Bella Tobin, *Dessins d'enfants for single-cycle Belyi maps*, Research Directions in Number Theory (Jennifer S. Balakrishnan, Amanda Folsom, Matilde Lalín, and Michelle Manes, eds.), Springer International Publishing, 2019, pp. 153–159

SELECT TALKS

<i>Equidistribution in Stochastic Dynamical Systems</i> Equidistribution and Dynamical Systems, Oklahoma State University	June 2022
<i>Local Data of Isogenous Elliptic Curves</i> AWM Research Symposium	June 2022
<i>Belyi Maps in Arithmetic Dynamics</i> Front Range Number Theory Day	April 2022
<i>Local Data of Isogenous Elliptic Curves</i> JMM 2022 Special Session on Rethinking Number Theory	April 2022
<i>Belyi Maps in Arithmetic Dynamics</i> Oklahoma University Algebra and Representation Theory Seminar	April 2022
<i>Equidistribution in Stochastic Dynamical Systems</i> Oregon State University Number Theory Seminar	February 2022
<i>Reduction of post-critically finite polynomials</i> Oregon Number Theory Day, Portland State University	October 2021
<i>Ramanujan-Sato series and arithmetic triangle groups (joint talk)</i> WIN5 Power Day	August 2021
<i>Reduction of post-critically finite polynomials</i> People Online in Number Theory	June 2021
<i>Applications of dynamical Belyi polynomials in arithmetic dynamics</i> JMM Special Session on Current Trends in Arithmetic Dynamics	January 2021
<i>Post-critically finite polynomials with everywhere good reduction</i> Louisiana State University Algebra and Number Theory Seminar	November 2020
<i>Applications of dynamical Belyi polynomials</i> Arithmetic Dynamics International Online Seminar	October 2020
<i>Cubic post-critically finite polynomials defined over \mathbb{Q}</i> Algorithmic Number Theory Symposium, Auckland, New Zealand	July 2020
<i>Post-critically finite bicritical polynomials over number fields</i> JMM Special Session on Arithmetic Dynamics, Denver, CO	January 2020
<i>Post-Critically Finite Cubic Polynomials with Coefficients in \mathbb{Q}</i> Oklahoma State University Math Department Colloquium	November 2019
<i>Dessins d'enfants for single-cycle Belyi maps</i> AWM Research Symposium, Rice University	April 2019
<i>Post-critically finite bi-critical polynomials over \mathbb{Q}</i> AMS Western Section, University of Hawaii	March 2019

TEACHING EXPERIENCE

Oklahoma State University 2019-present

- Research Methods (Math 3933)
- Introduction to Cryptography (Math 4753/5753)

- Calculus I (Math 2144)

Thrive Scholars Summer Academy *Summer 2021, 2022*

- Multivariable Calculus (Summer 2022)
- Calculus I with Algebra (Summer 2021)

University of Hawai'i at Mānoa *2013-2019*

- Calculus I (Math 241)
- Math for Elementary School Teachers Sequence (Math 111 & 112)
- Precalculus: Elementary Functions (Math 134/135)
- Survey of Mathematics (Math 100)

AWARDS, HONORS, AND GRANTS

AMS-Simons Travel Grant	2022-2024
Early-career AMS-NSF-Simons-ICM Travel Grant (Program cancelled)	2022
President's Fellows Foundation funding for Oklahoma State Distinguished Women in Math Colloquium Series	2020
Project NExT Fellow (Brown Dot)	2020
AIM SQuaRE on Dynamical Belyi Maps	2019-2022

CONFERENCES, WORKSHOPS, AND RESEARCH EXPERIENCES

Equidistribution and Arithmetic Dynamics, Oklahoma State University	June 2022
AWM Research Symposium, University of Minnesota	June 2022
Front Range Number Theory Day, Colorado State University	April 2022
Western Algebraic Geometry Symposium, Colorado State University	April 2022
TORA XI, Oklahoma State University	April 2022
West Coast Number Theory, virtual	December 2021
Oregon Number Theory Days, Portland State University	October 2021
Mathfest 2021, virtual	August 2021
Rethinking Number Theory, virtual	July 2021
Joint Math Meetings 2021, virtual	January 2021
Women in Numbers workshop 5, virtual	November 2020
Mathfest 2020, virtual	July 2020
Algorithmic Number Theory Symposium, virtual	July 2020
CTNT Conference 2020, virtual	May 2020
Joint Math Meetings 2020, Denver, CO	January 2020

Sage Days 104: Arithmetic Dynamics, St. Louis, MO	November 2020
AWM Research Symposium, Rice University	April 2019
AMS Spring Central and Western Joint Sectional Meeting, UH Mānoa	April 2019
Hawaii Number Theory 2019, University of Hawaiï at Mānoa	March 2019
CTNT Workshop & Conference 2018, University of Connecticut	May 2018
Sage Days 81, Honolulu, HI	August 2016
Hawaii Partnerships for Education HICAN Summit, Honolulu, HI	April 2016
Galileo Teacher Training Program, Honolulu, HI	August 2015
RTG Workshop on Arithmetic Dynamics, University of Michigan	December 2015

PROFESSIONAL SERVICE, OUTREACH, AND DEVELOPMENT

Faculty co-sponsor of the Oklahoma State Student Chapter of the Association for Women in Mathematics	2020-2022
Co-organizer of the Distinguished Women in Mathematics Colloquium Series at Oklahoma State University	2021-2022
Journal Referee	
Co-Organizer for <i>One-minute Teaching Activities</i> MAA Webinar	March 2020
Founder and president of the AMS Student Chapter at the University of Hawaii	2017-2019
Organizer for "Be A Scientist Night", at the Honolulu Institute for Human Services	December 2017, 2018
Mentor for high-school students interested in STEM	Summer 2016, 2017
K-12 Teaching Fellow at University of Hawaii	2015-2016