Curriculum Vitae 2023
Eriko Hironaka

Contact Information

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Education

1990	PhD, Brown University, Providence, RI.
	Advisor: Alan Landman.
1984	BA, Harvard University, Cambridge, MA. Major: Mathematics.

Employment

2022-present	NSF Program Director, VSEE Rotator
2019-2022	Consultant to the American Mathematical Society Book Program
2019-2021	Lecturer, Mathematics Department, Harvard University
2015-2019	Senior Editor, Book Program, American Mathematical Society
2011-2016	Professor, Mathematics Department, Florida State University
2002-2011	Associate Professor, Mathematics Department, Florida State University
1997-2002	Assistant Professor, Mathematics Department, Florida State University
1994–1997	C.L.T.A. Assistant Professor, Mathematics, University of Toronto
1992–1994	Szegö Instructor, Mathematics, Stanford University
1991-1992	Visiting Professor, Max-Planck-Institut-für-Mathematik, Bonn, Germany
1990-1991	Visiting Assistant Professor, Stanford University
1989-1990	Visiting Assistant Professor, Haverford College

Academic Awards and Recognitions

2016	Professor Emerita, Florida State University
2014	Marion Bradley Brennan Professorship, Florida State University

Research

Background and Interests: algebraic geometry, geometric topology, complex dynamical systems

Recent publications

[1] Standardly embedded train tracks and pseudo-Anosov maps with minimum expansion factor, with Chi Cheuk Tsang, 2022 (submitted)

[2] Quotient families of mapping classes, Topology Proc. vol 56, 2020, p, 161-194

[3] The augmented deformation space of rational maps, Contemp. Math, vol. 742, 2020, p. 85-108

[4] A disconnected deformation space of rational maps (joint with Sarah Koch) J. of Mod. Dynam. vol. 11, 2017, p.409-423

[5] On Coxeter mapping classes and fibered alternating links (joint with L. Liechti) Mich. Math. J. vol. 65 (4) 2016, p.788-812

[6] Digraphs and cycle polynomials for free-by-cyclic groups (joint with Y. Algom-Kfir and K.Rafi) Geometry and Topology vol.9 (2), 2015, p.1111-1154

Recent Contracts and Grants

Simons Foundation Collaboration Grant (Florida State University)
Topology and dynamics in low dimensions. (Aug 2016 - July 2022)

Simons Foundation Collaboration Grant (Florida State University)
Fibered 3-Manifolds and their Monodromy. (Jul 2011–Aug 2016)

Administrative experience

National Science Foundation (MPS-DMS Topology and Geometric Analysis Program Director)
> **Panel Organization:** Team readings in groups of 4 to 6 program directors, dividing up approximately 350 proposals for NSF workforce and research grants into panels, selecting and recruiting review panelists. Hosting panels.
> **Reporting:** Writing review analyses and processing proposals through to the division directorate. This is done in consultation with panel teams, program assistants, and directorate when necessary.

American Mathematical Society (2016-2021)
> **Book Acquisitions:** Seek out and correspond with authors interested in publishing university textbooks and research monographs in mathematics; find reviewers for the books, give feedback to authors and advice on preparing their books for publication; prepare project and pricing sheets and explain to the publication committee the book's intellectual merit and audience.
> **Writing:** Back cover summaries for books, regular bimonthly column for the AMS Bookshelf, a regularly featured section of the AMS Notices.
> **Managing:** AMS Open Math Notes - a recently developed free repository for downloadable books in progress and lecture notes, sometimes called "arxiv for math books". Monitoring, fixing bugs, corresponding with advisory board.

Service at Florida State University (2011-2016)
Department
> Member, Executive Committee (2013-2014)
> Faculty Evaluation Committee (2013-2014).
> Pure Mathematics Program Director (2013-2014)
> Outreach Event Organizer, Department Open House "Math Fun Day" (2013-2015)

University
> (Fall 2014) Science Committee for Faculty Promotions
> (Fall 2013) Marcus Professorship Award selection committee
> (Fall 2012) Chair search committee, Psychology Department

Conference Organization
> (2019) Co-organizer, IPAM Workshop - *Braids, Resolvent Degree and Hilbert's 13th Problem,* IPAM, CA
> (with B. Farb, M. Kisin, J. Wolfson)
> (2018) Co-organizer, *Conference on Growth in Topology and Number Theory: Volumes, Entropy, and L2-torsion,* Hausdorff Institute of Mathematics, Bonn, Germany (with S. Friedl, R. Kellerhals, W. Lueck)
> (2017) Co-organizer, *Workshop on Braids and Rational Maps,* Harvard University, MA (with S. Koch)

Student Supervision and Invited Lectures

Undergraduate Research Supervision (at Harvard)
> (Summer 2020) Andrew Garber (PRISE undergraduate program for research in science and engineering)

Doctoral Thesis Supervision (at FSU)
> M. Aktas (PhD 2017), R. Billet (PhD 2016), J. Armstrong (PhD 2012), A. Valdivia (PhD 2011)

Recent Invited Lectures:
> (April 2022) Research Seminar (MSRI)
> > Title: *Deformation Spaces of Rational Maps*
> (March 2022) Topology Seminar (U.C. Berkeley)
> > Title: *Lower bounds for expansion factors of fully-punctured pseudo-Anosov braid monodromies*
> (June 2021) No Boundaries Seminar (U. Chicago)
> > Title: *Lehmer's number in geometry and dynamics*
> (March 2021) AMS Sectional Meeting (Brown U.)

Title: *On deformation spaces for rational maps*
(May 2020) Arithmetic and Dynamics International Online Seminar (ADIOS)
Title: *On the connectivity of the Epstein Deformation Space for Per_4(0)* maps.*
(February 2019) Distinguished Colloquium (U. British Columbia)
Title: T*opology, Combinatorics, and Dynamics of Rational Maps*
(November 2018) Geometry and Topology Seminar (Columbia U.)
Title: *Topological vs Geometric Entropy in Flow Equivalence Classes*
(June 2018) Topology Seminar (U. of Osaka, Japan)
Title: Coxeter mapping classes and generalizations
(November 2017) Workshop on Computation in Geometric Topology (U. of Warwick, UK)
Title: *Directed train tracks for fibered hyperbolic manifolds*
(June 2017) Workshop on Braids in Algebra, Geometry and Topology (ICMS, Edinburgh, UK)
Title: *Braid Group Actions on Rational Maps.*