

Dominic F. Veconi

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Department of Mathematics <http://dominic.veconi.com/>
Manchester Building Citizenship: USA
North Carolina, US Languages: English, Italian

EDUCATION

- 2021 May Ph.D. Mathematics, The Pennsylvania State University, University Park, PA 16802
Thesis topic: Thermodynamics of some nonuniformly hyperbolic dynamical systems.
Advisor: Yakov Pesin
- 2015 May B.A. Mathematics, Hamilton College, Clinton, NY 13323

PREVIOUS POSITIONS

- 2024 – Wake Forest University, Department of Mathematics, *Postdoctoral Teacher-Scholar*
- 2023 – 2024 Coventry University, Department of Mathematics, Physics and Data Science, *Assistant Teaching Fellow*
- 2021 – 2023 Abdus Salam International Centre for Theoretical Physics, *Postdoctoral Fellow*
- 2016 – 2021 Pennsylvania State University, *Graduate Teaching Assistant*

RESEARCH INTERESTS

Dynamical systems, smooth ergodic theory, hyperbolic dynamics, thermodynamic formalism.

PUBLICATIONS

6. Polynomial decay of correlations of pseudo-Anosov diffeomorphisms. *Preprint*.
arXiv:2504.08162
5. Finite time hyperbolic coordinates (joint work with S. Luzzatto and K. War).
Preprint. arXiv:2502.00291
4. SRB measures of singular hyperbolic attractors. *Disc. Cont. Dyn. Sys.* **42**(7),
3415-3430. 2022. arXiv:2104.10773.
3. Thermodynamics of smooth models of pseudo-Anosov homeomorphisms. *Erg. Th.*
Dyn. Sys. **42**(3), 1284-1326. 2022. arXiv:1912.09625.
2. Equilibrium states of almost Anosov diffeomorphisms. *Disc. Cont. Dyn. Sys.*
40(2), 767-780. 2020. arXiv:1901.04631.
1. Initial and Boundary Value Problems for the Caputo Fractional Self-Adjoint Difference
Equations. (with K. Ahrendt, L. DeWolf, L. Mazurowski, K. Mitchell, and T.
Rolling.) *Enlightenment in Pure and Applied Mathematics*. **2**(1). 2016.
arXiv:2002.07909.

RESEARCH TALKS

- 2024 Sept Dynamical Systems Seminar, Wake Forest University
 2023 Dec Dynamical Systems Seminar, University of Loughborough
 2023 May Ergodic Theory and Dynamical Systems Seminar, University of Warwick
 2023 Mar Dynamical Systems Seminar, International Centre for Theoretical Physics
 2022 Dec International and Online Mathematics Days III, Universidade Federal de Viçosa (Online)
 Oct Dynamical Systems Working Seminar, Penn State University
 Dynamical Systems Seminar, University of Exeter.
 Sept Dynamical Systems Seminar, University of Maryland
 Feb Dynamical Systems Seminar, Scuola Normale Superiore di Pisa (Hybrid)
 2020 Oct Workshop in Dynamical Systems and Related Topics, Penn State University (Online)
 Dynamical Systems Seminar, University of Maryland (Online)
 Jun Mathematics Seminar, International Center for Theoretical Physics (Online)
 2019 Aug 2020 Vision for Dynamical Systems, IMPAN
 Apr Workshop on Dynamical Systems and Related Topics, University of Maryland
 2018 Aug Dynamical Systems Working Seminar, Penn State University
 2015 Jan Undergraduate Poster Session, Joint Mathematics Meetings (Poster)
 2014 Sept Department of Mathematics Colloquium, Hamilton College.

OTHER TALKS

- 2017 Oct Math Department Diversity Seminar, Penn State University.

OTHER PROFESSIONAL TRAVEL

- 2025 Jun Beyond Uniform Hyperbolicity II, ICTP
 2024 Nov Workshop on Dynamical Systems and Related Topics, Penn State University
 2023 Apr Master Class on Low Dimensional Dynamical Systems, Stockholms Matematikcentrum
 2022 Nov Workshop on Dynamical Systems and Related Topics, Penn State University
 Oct International Conference on Dynamical Systems, IMPA
 May Mutually enhancing connections between ergodic theory, combinatorics, and number theory: Minicourse by Vitaly Bergelson, Università di Pisa
 2021 Nov Markov partitions and Young towers in dynamics: Workshop at ICTP (online)
 2020 Jan Joint Mathematics Meetings
 2017 Aug Current Trends in Dynamical Systems and the Mathematical Legacy of Rufus Bowen, University of British Columbia
 Jun Workshop on Hyperbolic Dynamics, International Center for Theoretical Physics
 May Summer School on Dynamical Systems, University of Houston
 Apr Workshop on Dynamical Systems and Related Topics, University of Maryland

TEACHING EXPERIENCE
Wake Forest University2026 Spr MTH-352/MTH-652: Partial Differential Equations, *Professor*MTH-112: Calculus with Analytic Geometry II, *Professor*2025 Fall MTH-111: Calculus with Analytic Geometry I, *Professor*MTH-117: Discrete Mathematics, *Professor*Spr MTH-112: Calculus with Analytic Geometry II, *Professor*2024 Fall MTH-111: Calculus with Analytic Geometry I, *Professor***Coventry University, Coventry Campus**Spr 4020CMD: Engineering Mathematics, *Module Leader*2023 Fall 4001CMD: Mathematical Skills for Computing Professionals, *Module Leader*4007CMD: Calculus, *Module Leader*5033CEM: Real and Complex Analysis, *Module Leader*2023 Sum 4068CEM: Mathematics for Computer Science, *Module Leader***INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS DIPLOMA PROGRAM**2022 Fall Topology, *Tutor*Spr Dynamical Systems, *Tutor***INTERNATIONAL MATHEMATICS MASTER**2021 Fall Complex Analysis (Online), *Course Coordinator and Tutor***THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK**2021 Spr Math 429: Introduction to Topology, *Teaching Assistant*2020 Fall Math 141: Calculus with Analytic Geometry II (Online), *Instructor*Spr Math 111: Techniques of Calculus II, *Instructor*2019 Fall Math 220: Matrices, *Instructor*Spr Math 231: Calculus of Several Variables, *Instructor*2017 – 2019 Math 230: Calculus and Vector Analysis, *Instructor*2017 Sum Math 141: Calculus with Analytic Geometry II (Online), *Teaching Assistant*2016 – 2017 Math 251: Ordinary and Partial Differential Equations, *Instructor*2016 Sum Math 110: Techniques of Calculus I, *Instructor*Spr Math 021: College Algebra I, *Instructor*2015 Fall Math 022: College Algebra II (Online), *Teaching Assistant***HAMILTON COLLEGE**2015 Spr Math 337: Partial Differential Equations, *Grader*2012 – 2015 Quantitative and Symbolic Reasoning Center, *Tutor*

SERVICES

2025 – Equity Committee, Wake Forest University

2024 Jan Minicourse and Workshop: Statistical Properties of Smooth Dynamical Systems, *Co-Organizer*.2024 – 2025 Dynamical Systems Working Seminar, Wake Forest University, *Organizer*

2024 – 2025 Colloquium Committee, Wake Forest University

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- 2021 – 2023 Dynamical Systems Seminar, International Centre for Theoretical Physics, *Organizer*
2021 – 2023 Faculty Council, International Centre for Theoretical Physics, *Postdoctoral Representative*
2020 – 2021 Graduate Student Association, Penn State Math Department, *President*
2018 – 2021 Graduate Student Open House, Penn State Math Department, *Organizer and Panelist*
2018 – 2020 Student-Directed Colloquium, Penn State Math Department, *Organizer*
2018 – 2020 Graduate Student Mentorship Program, Penn State Math Department, *Organizer*
2017 – 2021 Climate and Diversity Committee, Penn State Eberly College of Science
2017 – 2021 Climate and Diversity Committee, Penn State Department of Mathematics
2016 – 2017 Climate and Diversity Workshop Committee, *Chair (2017)*

REFEREES

- 2025 Real Analysis Exchange
2023 Nonlinearity
2023 Journal of the London Mathematical Society

AWARDS AND HONORS**GRANTS AWARDED**

2025 Jul AMS-Simons Travel Grant

TEACHING

2018 Apr Charles H. Hoover Memorial Graduate Teaching Award, Penn State University Department of Mathematics

Apr Graduate Teaching Associateship, Penn State University Department of Mathematics

2017 Apr Graduate Teaching Award, Penn State University Department of Mathematics

SERVICE

2018 Apr ZZRQ Service Award, Penn State University Department of Mathematics

ACADEMIC

2020 Sept August and Ruth Homeyer Fellowship, Penn State University

2019 Sept Vollmer-Kleckner Scholarship in Science, Penn State University

2016 – 2018 Jack and Eleanor Pettit Scholarship in Science, Penn State University

May Φ BK Member, Hamilton College

May Elihu Root Fellowship for Graduate Studies, Hamilton College

May Tompkins Prize in Mathematics, Hamilton College

May Departmental Honors in Mathematics, Hamilton College

2014 Aug Edward Huntington Memorial Prize Scholarship, Hamilton College