

# Dominic F. Veconi

The Pennsylvania State University    [dkv5049@psu.edu](mailto:dkv5049@psu.edu)  
Department of Mathematics    <http://dominic.veconi.com/>  
417 McAllister Building    Citizenship: USA  
University Park, PA 16802, USA    Languages: English

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## EDUCATION

- 2021    May    Ph.D. Mathematics, The Pennsylvania State University  
                    Thesis topic: Thermodynamics of some nonuniformly hyperbolic dynamical systems.  
                    Advisor: Yakov Pesin
- 2015    May    B.A. Mathematics, Hamilton College, Clinton, NY 13323  
                    Advisor: Robert Kantrowitz  
                    Departmental Honors, Magna Cum Laude  
                    Minor in Biology

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## RESEARCH INTERESTS

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

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## COMPUTER EXPERIENCE

- Languages: C++, Python

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## PUBLICATIONS

4. SRB measures of singular hyperbolic attractors. *Preprint*, 2021. [arXiv:2104.10773](https://arxiv.org/abs/2104.10773). 15 pages.
3. Thermodynamics of smooth models of pseudo-Anosov homeomorphisms. To appear in *Erg. Th. Dyn. Sys.* 2021. [arXiv:1912.09625](https://arxiv.org/abs/1912.09625). 41 pages.
2. Equilibrium states of almost Anosov diffeomorphisms. *Disc. Cont. Dyn. Sys.* Volume 40, Number 2, February 2020, Pages 767-780. [arXiv:1901.04631](https://arxiv.org/abs/1901.04631). 14 pages.
1. Initial and Boundary Value Problems for the Caputo Fractional Self-Adjoint Difference Equations. *Enlightenment in Pure and Applied Mathematics*. Volume 2, Number 1, 2016. [arXiv:2002.07909](https://arxiv.org/abs/2002.07909). 32 pages.

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**RESEARCH TALKS**

- 2020 Oct Workshop in Dynamical Systems and Related Topics, Penn State University (Online)  
Dynamical Systems Seminar, University of Maryland (Online)  
June 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

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**OTHER TALKS**

- 2017 Oct Math Department Diversity Seminar, Penn State University

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**OTHER PROFESSIONAL TRAVEL**

- 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.

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**TEACHING EXPERIENCE****THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK**

- 2021 Jan Math 429: Introduction to Topology, *Teaching Assistant*  
2020 Aug Math 141: Calculus with Analytic Geometry II (Online), *Instructor*  
Jan Math 111: Techniques of Calculus II, *Instructor*  
2019 Aug Math 220: Matrices, *Instructor*  
Jan Math 231: Calculus of Several Variables, *Instructor*  
2017 – 2019 Math 230: Calculus and Vector Analysis, *Instructor*  
2017 Jun Math 141: Calculus with Analytic Geometry II (Online), *Teaching Assistant*  
2016 – 2017 Math 251: Ordinary and Partial Differential Equations, *Instructor*  
2016 May Math 110: Techniques of Calculus I, *Instructor*  
Jan Math 021: College Algebra I, *Instructor*  
2015 Aug Math 022: College Algebra II (Online), *Teaching Assistant*

**HAMILTON COLLEGE**

- 2015 Jan Math 337: Partial Differential Equations, *Grader*  
2012 – 2015 Quantitative and Symbolic Reasoning Center Tutor

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**SERVICES**

- 2020 – 2021 Graduate Student Association, Penn State Math Department, *President*  
2018 – 2021 Prospective Graduate Student Open House, Penn State Math Department  
2018 – 2020 Student-Directed Colloquium, Penn State Math Department, *Organizer*  
2018 – 2020 Graduate Student Mentorship Program, Penn State Math Department  
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)*

## AWARDS AND HONORS

### ACADEMIC

- 2020 Oct Alumni Association Dissertation Award (Nominee), Penn State University  
 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
- 2015 Sept Vollmer-Kleckner Scholarship in Science, Penn State University  
 May  $\Phi$ 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

### TEACHING

- 2020 Oct Harold F. Martin Graduate Assistant Outstanding Teaching Award (Nominee), Penn State University
- 2018 Apr Charles M. 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  
 Jan Dean's Climate and Diversity Award (nominee), Penn State University

## PROFESSIONAL MEMBERSHIPS

- 2019 – Mathematics Association of America  
 2015 – American Mathematical Society