

Snir Ben Ovadia

Curriculum Vitae

Einstein Institute of Mathematics
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Employment

2025- : Senior Lecturer (Assistant Professor) at the Einstein Institute of Mathematics at the Hebrew University of Jerusalem

2024-2025: A. Katok Center for Dynamical Systems and Geometry Assistant Research Professor at the Pennsylvania State University

2021-2024 : Eberly Research Fellow at the Department of Mathematics of the Eberly College of Science in the Pennsylvania State University

Education

2016-21 : Ph.D. Mathematics, Weizmann Institute of Science, advisor Prof Omri Sarig.
Dissertation title: Symbolic Dynamics and Physical Equilibrium Measures in Non-Uniformly Hyperbolic Dynamics

2014-16 : M.Sc. Mathematics, Weizmann Institute of Science, advisor Prof Omri Sarig

2011-14 : B.Sc. (summa cum laude) in Mathematics and in Physics, Tel Aviv University

Teaching

2024 : Classical Analysis I, Instructor, Penn State University
2022 : Calculus with Analytic Geometry I, Instructor, Penn State University
2018 : Introduction to Ergodic Theory, TA, Weizmann Institute of Science
2017 : Complex Analysis and Partial Differential Equations, TA, Weizmann Institute
2016 : Calculus, TA, Interdisciplinary Center Herzliya

Awards and Fellowships

2021-2024- Eberly Fellowship in the Pennsylvania State University

2017- Susan Sapir Memorial award (outstanding M.Sc. thesis in the Weizmann Institute of Science)

2015- Final Ltd. Award (top 5 excelled M.Sc. students in computer science related fields in Israel)

2014- Tel Aviv University's School of Physics' excellence scholarship

2013- Dean's List

2013- Memorial Scholarship

Publications

a. Published

Ben Ovadia, Snir: *Symbolic dynamics for non-uniformly hyperbolic diffeomorphisms of compact smooth manifolds*. Journal of Modern Dynamics **13** (2018), 43–113 (Roy Adler Memorial Volume).

Ben Ovadia, Snir: *The set of points with Markovian symbolic dynamics for non-uniformly hyperbolic diffeomorphisms*. Ergodic Theory and Dynamical Systems, 2020, 1-26.

Ben Ovadia, Snir: *Hyperbolic SRB measures and the leaf condition*. Communications in Mathematical Physics **387** (2021), no. 3, 1353-1404.

Ben Ovadia, Snir: *Invariant family of leaf measures and the Ledrappier-Young property for hyperbolic equilibrium states*. Ergodic Theory and Dynamical Systems, 2022, 1-33.

Ben Ovadia, Snir: *Summable Orbits*. Journal of Modern Dynamics **19** (2023), 625–715.

Ben Ovadia, Snir, and Rodriguez-Hertz, Federico: *Neutralized local entropy and dimension bounds for invariant measures*. International Mathematics Research Notices, rnae047, <https://doi.org/10.1093/imrn/rnae047>.

Ben Ovadia, Snir, and DeWitt, Jon: *Anosov diffeomorphisms of open surfaces*. Geom Dedicata **219**, 62 (2025). <https://doi.org/10.1007/s10711-025-01020-7>.

b. Submitted

Ben Ovadia, Snir, and Rodriguez-Hertz, Federico: *Exponentially fast volume limits*. arXiv:2302.10874.

Ben Ovadia, Snir: *Tubular Dimension: Leaf-wise asymptotic local product structure, and entropy and volume growth*. arXiv:2402.02496.

Ben Ovadia, Snir, Ma, Qiaochu, and Rodriguez-Hertz, Federico: *Mixed quantization and partial hyperbolicity*. arXiv: 2409.13660.

Algom, Amir, Ben Ovadia, Snir, Rodriguez-Hertz, Federico, and Shannon, Mario: *How linear can a non-linear IFS be?*. arXiv: 2410.22145.

Ben Ovadia, Snir, Burguet, David: *Generalized u -Gibbs measures for C^∞ diffeomorphisms*. arXiv: 2506.18238.

Languages

Hebrew (mother tongue), English (fluent), French (basic)

Other Noteworthy Activities and Skills

Organizing seminars

Organizer of the Dynamical Systems Seminar and the Dynamical Systems Working Seminar at Penn State for Fall and Spring 2022 semesters.

Contributions to publications

Per invitation, drafted Section §11.3 in *Introduction to Smooth Ergodic Theory*, Second Edition, Luís Barreira and Yakov Pesin, 2023, ISBN-13: 978-1-4704-7065-4.

Honors program

Data analysis at CERN's detectors at the High Energy Physics Lab, Tel Aviv University (2011).

Invited talks

- Beyond Uniform Hyperbolicity, ICTP, Italy (June 2025)
 - Geometry and Functional Analysis and Probability Seminar, Weizmann Institute of Science, Israel (January 2025)
 - GDRT Seminar, Technion, Israel (January 2025)
 - Colloquium, Hebrew University, Israel (January 2025)
 - Geometry and Dynamics Seminar, Tel Aviv University, Israel (January 2025)
 - Colloquium, Ben-Gurion University, Israel (December 2024)
 - Semi-annual Workshop in Dynamical Systems and Related Topics, Penn State University, US (November 2024)
 - Geometry and Functional Analysis and Probability Seminar, Weizmann Institute of Science, Israel (May 2024)
 - Dynamics Seminar, Penn State University, US (February 2024)
 - Dynamics and Topology Seminar, University of Florida, US (November 2023)
 - Semi-annual Workshop in Dynamical Systems and Related Topics, Penn State University, US (October 2023)
 - Dynamical Systems Seminar, Northwestern University, US (October 2023)
 - Ergodic Theory Seminar, Ohio State University, US (September 2023)
 - Dynamics Seminar, Penn State, US (August 2023)
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- Dynamics Seminar, University of Maryland, US (March 2023)
 - Ergodic Theory Seminar, Sorbonne University, France (February 2023)
 - DynamIC Seminar, Imperial College London, England (March 2022)
 - Dynamics Seminar, University of Chicago, US (January 2022)
 - Markov Partitions and Young Towers in Dynamics, ICTP, Italy, virtual (December 2021)
 - Dynamics Seminar, Penn State, US (October 2021)
 - Dynamics Seminar, University of Maryland, US (September 2021)
 - Zoominar in Dynamical Systems, PUC-Chile, virtual (April 2021)
 - Dynamical Systems and Probability Seminar, HUJI, virtual (December 2020)
 - Expanding Dynamics VII Workshop, virtual (November 2020)
 - Semi-annual Workshop in Dynamical Systems and Related Topics, Penn State University, virtual (October 2020)
 - The Annual Meeting of the Israeli Mathematical Union, virtual (September 2020)
 - Thermodynamic Formalism: Ergodic Theory and Geometry, University of Warwick, UK (July 2019)
 - Summer seminar in dynamical systems, SUSTech, China (June 2019)
 - Beyond Uniform Hyperbolicity workshop, CIRM, France (May 2019)
 - Workshop on Dynamical Systems and Related Topics, University of Maryland, US (April 2019)
 - Dynamical Systems Seminar, Brigham Young University, US (April 2019)
 - Ergodic Theory and Dynamical Systems Seminar, Tel Aviv University, Israel (May 2018)
 - Dynamical Systems and Related Topics Seminar, Penn State University, US (April 2017)
 - Geometry, Topology and Dynamics Seminar, Université Paris-Sud, France (March 2017)
 - Ergodic Theory and Dynamical Systems Seminar, Tel Aviv University, Israel (February 2017)
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