Tom Benhamou Curriculum Vitae

Assistant Professor · Tel Aviv University

School of Mathematical Sciences,
Tel Aviv 69978, Israel

tombenhamou@tauex.tau.ac.il | https://www.math.tau.ac.il/ tombenhamou/

Primary Research Interest: Logic & Foundations, Set Theory, Ultrafilters Combinatorics, Cardinal Arithmetics, Large Cardinals, Forcing Theory, Infinite Combinatorics and Ramsey Theory, Topology.

Professional Experience

July. 2026 -	**Assistant Professor**, School of Mathematical Sciences, Faculty of Exact Sciences	*Tel-Aviv University (TAU)*
Aug. 2023 - July 2026	**Hill Research Assistant Professor**, Department of Mathematics.	*Rutgers University*
Sep. 2022-June. 2023	**Research Assistant Professor**, Department of Mathematics, Statistics, and Computer Science.	*University of Illinois at Chicago (UIC)*

Education

Sept. 2017-Sept. 2022 **Ph.D. in Mathematics**, *TAU*
- *Advisor: Prof. Moti Gitik*
- *Dissertation title: Intermediate Models of Prikry-type Forcings*

Sept. 2015-Sept. 2017 **M.Sc. in Mathematics**, *TAU*
- *Advisor: Prof. Moti Gitik*
- *Summa cum lauda*

Sept. 2012-Sept. 2015 **B.Sc. in Mathematics**, *TAU*
- *Cum lauda*

Publications

Published& Accepted

[1] **Benhamou, T.**, Weltsch, B., 2026, Supercompact Measures and the Galvin Property, Journal of Symbolic Logic, to appear.

[2] **Benhamou, T.**, Goldberg G., 2026, Applications of the Magidor iteration to Ultrafilter Theory, Forum of Mathematics, Sigma, 14: e61.

[3] **Benhamou, T.**, Sinapova D., 2024, Stationary Reflection and the Failure of SCH at $\aleph_{\omega_1}$, Transaction of the American Mathematical Society, to appear.

[4] **Benhamou, T.**, Moore, J. T., Sarefin, L., 2026, Uniform ultrafilters over successor cardinals, Fundamenta Mathematicae, to appear.

[5] **Benhamou, T.**, Gitman Victoria, 2026, Cardinals of the $P_\kappa(\lambda)$-filter games, Israel Journal of Mathematics, to appear.

[6] **Benhamou, T.**, Wu F. 2026, Diamond principles and Tukey-top ultrafilters on a countable set, Topology and its Applications, 381: 109739.

[7] **Benhamou, T.**, Goldberg G., 2026, Measures that violate the generalized continuum hypothesis, Advances in Mathematics, 487: 110778

[8] **Benhamou, T.** 2025, Saturation Properties in Canonical Inner Models, Journal for Mathematical Logic, to appear

[9] **Benhamou, T.**, Dobrinen, N. 2025, On the Tukey types of Fubini products, Proceedings of the American Mathematical Society, Series B, 2(9):103-117 to appear.

[10] **Benhamou, T.**, Goldberg G. 2025, The Galvin property under the Ultrapower Axiom, Canadian Journal of Mathematics, 77(5):1686-1717.

[11] **Benhamou, T.**, Dobrinen N. 2025, Cofinal types of ultrafilters over measurable cardinals, The Journal of Symbolic Logic, 90(4):1801-1835.

[12] **Benhamou, T.**, Garti S., Gitik M., Poveda A. 2025. Non-Galvin filters, Journal of Mathematical Logic, 25(02): 2450017.

[13] **Benhamou, T.**, Garti S., Poveda A. 2025, Galvin's property at large cardinals and an application to partition calculus, Israel Journal of Mathematics, 269: 143–184.

[14] **Benhamou, T.**, Zhang, J. 2024, Transferring Compactness, Journal of the London Mathematical Society, 109(6): e12940.

[15] **Benhamou, T.**, Gitik M., Hayut Y. 2024, The variety of projections of a tree-Prikry forcing, Journal of Mathematical Logic, 24(03): 2450006.

[16] **Benhamou, T.**, Garti S., Shelah S. 2023, Kurepa trees and the failure of the Galvin property, Proceedings of the American Mathematical Society, 151: 1301-1309.

[17] **Benhamou, T.**, Gitik M. 2023, On Cohen and Prikry forcing notions, The Journal of Symbolic Logic, 89(2): 858-904

[18] **Benhamou, T.**, Garti S., Poveda A. 2023, Negating the Galvin property, Journal of the London Mathematical Society, 108(1): 190-237.

[19] **Benhamou, T.**, Jirattikansakul, S. 2023, Small ultrafilter number at every singular cardinal, Acta Mathematica Hungaria, 171: 12-38

[20] **Benhamou, T.**, Gitik M. 2022, Intermediate models of Magidor-Radin forcing- Part II, Annals of Pure and Applied Logic, 173(6): 103107.

[21] **Benhamou, T.**, Gitik, M. 2022, Intermediate models of Magidor-Radin forcing- part I, Israel Journal of Mathematics, 262(1): 47-94.

[22] **Benhamou, T.**, Gitik, M. 2021, Sets In Prikry and Magidor generic extensions Annals of Pure and Applied Logic, 172(4): 102926

[23] **Benhamou, T.** 2019, Prikry forcing and tree Prikry forcing of various filters. Archive for Mathematical Logic, 58: 787-817.

Preprints

[1] **Benhamou, T.**, Cummings J., Goldberg G., Hayut, Y., Poveda A., Compactness phenomena in HOD and the Optimality of Magidor's Covering theorem, 2026.

[2] **Benhamou, T.**, Thei S., Weltsch B., On the intermediate models of the Strongly compact Prikry forcing, 2026.

[3] **Benhamou, T.** 2026, Scales in the Point Spectrum.

[4] **Benhamou, T.** and Sean Leclair 2026, On the asymptotic behavior of guessing sequences.

[5] **Benhamou, T.** 2026, Forms of Rapidness and powers of ideals.

[6] **Benhamou, T.** 2026, commutativity of cofinal types.

[7] **Benhamou, T.**, Switzer, C., 2025, Eventual Capturing on a measurable.

[8] **Benhamou, T** and Dobrinen, N. and Özlap, T., 2025, Tukey idempotency and strong p-points.

[9] **Benhamou, T.**, Cummings J., Goldberg G., Hayut Y., Poveda, A. 2025, Isomorphism classes of generating sets.

[10] **Benhamou, T.** 2024, On Ultrapowers and Cohesive Ultrafilters.

[11] **Benhamou, T.**, Poveda, A. 2024, Non-normal Magidor-Radin types of forcings.

Awards, Fellowships, & Grants

2026	**Early Career Award**, European Set Theoretic Society
2023-2026	**NSF Research Grant, PI on DMS -2346680**, National Science Foundation
2024-2026	**AIM SQuaRE with Cummings, Goldberg, Hayut, Poveda and Rinot**, American Institute of Mathematics
2022	**Minerva Fellowship**, Minerva Stiftung
2018	**Raymond and Beverly Sackler Award and Scholarship for Research Students**, Faculty of Exact Sciences, TAU
2016	**Excellence honor of the** , School of Mathematics, TAU
2014-2016	**Excellence Scholarship**, TAU
2014-15	**Dean's honor list**, TAU
2013-14	**Dean's honor list**, TAU

Invited Talks

Spring 26, The PCF of Directed Sets, European Set Theory Conference, Helsinki, FL

Spring 26, On the Cofinality of Ultrafilters University of North Texas departmental colloquium, Denton, TX

Spring 26, A characterization of ultrafilters coding dominating reals, CUNY Set Theory seminar, Manhattan, NY

Fall 2025, *On strong p-point and Tukey-idempotency* Carnegie Mellon Logic Seminar, Pittsburgh, PA

Fall 2025, *ultrafilters over successor cardinals* Lumini, Marseille, FR

Fall 2025, *Cofinalities of ultrafilters on successor cardinals* MAMLS, Rutgers, NJ

Fall 2025, *On the point and depth spectrum of ultrafilters* UToronto, Toronto, Ontario

Summer 2025, *Cofinalities of Ultrafilters* Inner model theory conference, Berkeley, CA

Winter 2025, *The Cofinality of an Ultrafilter*, Harvard Logic Colloquium, Cambridge, MA

Winter 2025, *Ultrafilters on measurables and non-measurables: discrepancies and techniques*, Set Theory CUNY seminar, Manhattan, NY

Winter 2025, *Generating Ultrafilters*, Arctic Set Theory Workshop, Kittilä, FL

Winter 2025, Oberwolfach. *Generating Ultrafilters*. Set Theory Workshop, Oberwolfach, GR

Winter 2025. *Commutativity and Ultrapower Characterization of the Tukey Order*. JMM, Seattle, WA

Summer 2024. *Recent developments in the Tukey order*. TAU Set Theory Seminar, Tal-Aviv, IS

Summer 2024. *Commutativity of Cofinal types*. AMS-UMI International Joint Meeting, Palermo, Sicily, IT

Spring 2024. *Cofinal types of ultrafilters on measurable and non-measurable cardinals*. ASL annual meeting, Ames, IW

Spring 2024. *Commutativity of cofinal types of ultrafilters*. Cornell Logic Seminar , Ithaca, NY

Winter 2024. *Commutativity of cofinal types of ultrafilters*. UC Berkeley Logic Colloquium , Berkeley, CA

Winter 2024. *Commutativity of cofinal types*. CUNY Logic Workshop, Manhattan, NY

Winter 2024. *Tukey-top ultrafilters under UA*. CUNY Set Theory Seminar, Manhattan, NY

Fall 2023. *Cofinal types of ultrafilters on measurable and non-measurable cardinals*. VCU ALPS, Richmond, VA

Summer 2023. *Galvin's property*. HUJI Set Theory Seminar, Jerusalem, IS

Summer 2023. *New results about the Tukey order on sigma complete ultrafilters.* TAU Set Theory Seminar, Tel-Aviv, IS

Spring 2023. *Galvin's Property and its applications*. UCLA Logic Colloquium, Los Angeles, CA

Spring 2023. *Saturation properties of ultrafilters*. CMU Set Thoery Seminar, Pittsburgh, PA

Winter 2023. *Saturation properties of ultrafilters*. JMM Meeting, Boston, MS

Fall 2022. *Intermediate models of Prikry-Type forcing*. Rutgers Logic Seminar, New Brunswick, NJ

Fall 2022. *The Galvin Property*. Notre Dame Logic Seminar, South Bend, IN

Summer 2022. *The Galvin property at successors of singulars*. Advances in Set Theory, Jerusalem, IS

Spring 2022. *Intermediate models, quotients and the Galvin property*. CUNY Set Theory Seminar, Manhattan, NY

Spring 2020. *Intermediate Models of Prikry-Type Forcing*. Prikry Forcing Workshop online, Leeds, UK

Fall 2020. *The Forcing Method and Prikry-Type Forcing*. IMU conference, Online, IS

Spring 2019. *Projections of Tree-Prikry forcing*. HUJI Set Theory Seminar, Jerusalem, IS

Spring 2017. *The Tree Property at* ω_2. BIU Set Theory Seminar, Bar-Ilan, IS

Teaching Experience

Spring 2026	**Introduction to Mathematical Logic**, Instructor	*Rutgers*
Fall 2025	**Calculus III**, Instructor	*Rutgers*
Fall 2025	**Calculus I**, Instructor	*Rutgers*
Spring 2025	**Introduction to Mathematical Reasoning**, Instructor	*Rutgers*
Fall 2024	**Introduction to Linear Algebra**, Instructor	*Rutgers*
Fall 2024	**Introduction to Mathematical Reasoning**, Instructor	*Rutgers*
Spring 2024	**Mathematical Logic**, Instructor	*Rutgers*
Spring 2024	**Introduction to Mathematical Reasoning**, Instructor	*Rutgers*
Fall 2023	**Set Theory**, Instructor	*Rutgers*
Spring 2023	**Set Theory (Graduate Level)**, Instructor	*UIC*
Fall 2022	**Introduction to Advanced Mathematics**, Instructor	*UIC*
Fall 2017-Spring 2022	**Introduction to Set Theory**, Instructor	*TAU*
Spring 2018-Spring 2022	**Discrete Mathematics and Combinatorics for computer science**, Instructor at Odyssey Program	*TAU*
Fall 2018- Spring 2022	**Linear Algebra**, Instructor at Odyssey Program	*TAU*
Spring 2019- Spring 2022	**Advanced Linear Algebra**, Instructor at Odyssey Program	*TAU*
Spring 2019- Spring 2022	**Probability**, Instructor at Odyssey Program	*TAU*
Spring 2016	**Advanced Set Theory**, Teaching Assistant	*TAU*
Fall 2015- Spring 2016	**Differential equations for engineers**, Teaching Assistant	*TAU*
Fall 2014- Spring 2016	**Linear Algebra for engineers**, Teaching Assistant	*TAU*
Spring 2014- Fall 2021	**Linear Algebra, Discrete Mathematics, Calculus, Set Theory, Summer Preparations**, Teaching Assistant at SAWA program	*TAU*

Non-academic Teaching

Fall 2015- Spring 2021	**Discrete mathematics, Calculus, Linear algebra**, Instructor	*Xtra student*
Dec. 2018- April 2021	**Discrete Mathematics, Linear Algebra 1&2, Calculus 1&2**, Academic supervisor and advisor at Adva Program	*SNC*

Oct. 2017- Sept. 2021 **Discrete Mathematics, Calculus, Linear algebra, Differential geometry, Probability**, Academic Mentor and Leading Instructor *Pituchim*

Outreach & Professional Development

Service and Outreach

2026 **Ph.D degree- Jiaming Zhang**, Thesis referee and Committee Member *Carnegie Mellon University*

2025 **Ph.D degree- Sebastiano Thei**, Thesis referee and Committee Member *Universitá degli Studi di Udine*

2025 **Qualification Exam- Denae Rupp**, Committee Member *Rutgers*

2025 **Master degree- Shachar Herpe**, Thesis Referee and Committee Member *Tel-Aviv University*

2024 **Qualification Exam- Ben-Zion Weltch**, Committee Member *Rutgers*

2023 **Qualification Exam- Fanxin Wu**, Committee Member *Rutgers*

2022 **Qualification Exam at UIC**, Committee Member *UIC*

Organizing

Present **Organizing the Tel Aviv Set Theory Seminar**, *Rutgers*

2023-2026 **Co-organizing the Rutgers Logic Seminar**, *Rutgers*

2023 **Co-organizing the UIC Logic Seminar**, *UIC*

Mentoring

2026 **Roee Sinai**, Master student, Almost Rapidness *TAU*

2024 **Ben-Zion Weltzch**, Graduate student, Supercompact-like measures and saturation properties *Rutgers*

2024 **Sean Le Clair**, Undergraduate Summer Research *Rutgers*

2023 **Fanxin Wu**, Graduate student, Diamond-like Principles on a Countable Set *Rutgers*

Development

Lumini Set Theory Workshop, Marseille (2025).

Arctic Set Theory Workshop, Kittilä, Finland (2024).

Oberwolfach Set Theory Workshop, Oberwolfach (2024).

AIM workshop, from $\aleph_2$ to infinity, San Jose (2023).

Peer Review

Forum of Mathematics, Sigma
Journal of the London Mathematical Society
National Science Foundation
Swiss National Science Foundation
Advances In Mathematics
Israel Journal of Mathematics
The Journal of Symbolic Logic
Annals of Pure and Applied Logic
Mathematical Logic Quarterly

Topology and its Applications
Archive for Mathematical Logic
Fundamenta Mathematicae
New Zealand Journal of Mathematics

Professional Memberships

American Mathematical Society (AMS).
Association of Symbolic Logic (ASL).

Languages

French (Native).
English (Fluent).
Hebrew (Native).