Curriculum Vitae

TAL ORENSHTEIN

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Education

2009 - 2014	Weizmann Institute of Science, Ph.D., Mathematics. Advisor: Prof. Gady Kozma. Thesis: On cookie monsters and greedy walkers: topics in self interacting random walks.
2012 - 2014	TU München, visiting Ph.D. student. Advisor: Prof. Noam Berger.
2007 - 2009	Weizmann Institute of Science, M.Sc., Mathematics. Advisors: Prof. Gady Kozma (Weizmann) and Prof. Boaz Tsaban (Bar-Ilan University). Thesis: Global topological properties and convergence of real functions.
2003 - 2007	Hebrew University in Jerusalem, B.Sc., Mathematics and Philosophy.

Appointments

3/2022 -	Ricercatore a tempo determinato di tipo B (tenure-track assistant professor), University of Milano-Bicocca.
10/2016 - 2/2022	Postdoc funded by DFG and hosted by The Technical University of Berlin, The Weierstrass Institute, The Free University of Berlin and Humboldt University.
9/2017 - 2/2022	Post-doctoral faculty at Berlin Mathematical School.
10/2014 - 9/2016	Postdoc at Université Lyon 1, funded by Labex Milyon.

Publications by topic

Infinite Combinatorial Topology

(1) Linear σ-additivity and some applications, with Boaz Tsaban.
Transactions of the American Mathematical Society 363, 2011, pp. 3621-3637.
URL: http://www.ams.org/journals/tran/2011-363-07/S0002-9947-2011-05228-1

(2) Pointwise convergence of partial functions: the Gerlits-Nagy problem, with Boaz Tsaban.
Advances in Mathematics 232, issue 1, 2013, pp. 311-326.
URL: http://www.sciencedirect.com/science/article/pii/S0001870812003489

Probability

(3) Greedy random walk, with Igor Shinkar.
Combinatorics, Probability and Computing 23, 2014, pp. 269-289.
URL: http://journals.cambridge.org/article_S0963548313000552

(4) Zero-one law for directional transience of one dimensional excited random walks, with Gideon Amir and Noam Berger.
Ann. Inst. H. Poincaré Probab. Statist. Vol. 52, Num. 1 (2016), pp. 47-57.
URL: http://projecteuclid.org/euclid.aihp/1452089259

(5) Excited mob, with Gideon Amir.
Stochastic Processes and their Applications 126 (2016), pp. 439-469.
DOI information: 10.1016/j.spa.2015.09.007

(6)   Excited random walk with periodic cookies, with Gady Kozma and Igor Shinkar.
Ann. Inst. Henri Poincaré Probab. Stat. Vol. 52. No. 3. (2016), pp. 1023-1049.
Preprint URL: http://arxiv.org/abs/1311.7439

(7)   Zero-one law for directional transience of one-dimensional random walks in dynamic
random environments, with Renato Soares dos Santos.
Electronic Communications in Probability 21 (2016).
Preprint URL: http://arxiv.org/abs/1507.03617

(8)   Infinite excursions of rotor walks on regular trees, with Sebastian Müller.
The Electronic Journal of Combinatorics 24.2 (2017), pp. 2-18.
Preprint URL: http://arxiv.org/abs/1511.05896

(9)   Scaling limit of wetting models in 1+1 dimensions pinned to a shrinking strip,
with Jean-Dominique Deuschel.
Stochastic Processes and their Applications Volume 130, Issue 5, May 2020, pp. 2778-2807.
DOI information: 10.1016/j.spa.2019.08.001. Preprint URL: http://arxiv.org/abs/1804.02248

(10)   Random walks in hypergeometric random environments, with Christophe Sabot.
Electronic Journal of Probability Volume 25 (2020), paper no. 33.
URL: https://projecteuclid.org/euclid.ejp/1583805862

(11)   Additive functionals as rough paths, with Jean-Dominique Deuschel and Nicolas Perkowski.
Annals of Probability Volume 49 Issue 3, May 2021, pp. 1450-1479.
DOI information: 10.1214/20-AOP1488. Preprint URL: http://arxiv.org/abs/1912.09819

(12)   Ballistic random walks in random environment as rough paths: convergence and area anomaly,
with Olga Lopusanschi. ALEA, Lat. Am. J. Probab. Math. Stat. 18, pp. 945–962 (2021)
DOI: 10.30757/ALEA.v18-34. URL: http://alea.impa.br/articles/v18/18-34.pdf

(13)   Rough invariance principle for delayed regenerative processes.
Electronic Communications in Probability 26, pp. 1-13, 2021
DOI: 10.1214/21-ECP406.

Preprints

(14)   On the gradient dynamics associated with wetting models,
with Jean-Dominique Deuschel and Henri Elad Altman.
Preprint URL: https://arxiv.org/abs/1908.08850

(15)   Aging for the stationary Kardar-Parisi-Zhang equation and related models,
with Jean-Dominique Deuschel and Gregorio Moreno Flores.
Preprint URL: https://arxiv.org/abs/2006.10485

Teaching

Spring 2022   Stochastic Methods and Models [28 hrs], in collaboration with Maurizia Rossi [28 hrs]. Master's degree course, Milano-Bicocca.

Spring 2019   Topics in random walks. Master's degree course, TU Berlin.

Spring 2014   Probability on graphs, Master's degree by Prof. Nina Gantert in TU München. Delivering the tutorial classes.

Spring 2014   Path properties of Brownian motion, Master's degree seminar by Prof. Noam Berger in TU München. TA.

Spring 2009   Forcing theory and independence proofs in mathematics, Master's degree course by Prof. Boaz Tsaban at the Weizmann Institute of Science. TA.

Summer 2008   Combinatorial number theory, Master's degree course by Prof. Boaz Tsaban at the Weizmann Institute of Science. TA.

Student supervision

2018   Magdalena Schwarz, Master thesis: Excited mob with periodic cookie environments.
       Co-supervision with Prof. Nicolas Perkowski at Humboldt.

2013   Markus Wohlrab, Bachelor thesis: Investment strategies for the extremely risk averse.
       Co-supervision with Prof. Noam Berger at TU Munich.

Organization activities

26-28 June 2019   Co-organizer of the Second Berlin-Barcelona Mathematical Schools Junior Meeting.

2011-2012   Organizer of the Probability Student Seminar in the department of mathematics, Weizmann Institute of Science.

Languages

Hebrew	Native
English	Fluent
Italian, French, German	Intermediate
Arabic	Basic

Selected invited talks

May 2021	SABP - Argentina-Brazil-Portugal joint probability seminar, online.
November 2020	Joint Israeli Probability Seminar, online.
November 2020	Mathematics Colloquium (online), Bar Ilan University, Ramat Gan, Israel.
September 2019	Japanese-German Open Conference on Stochastic Analysis, Fukuoka, Japan.
November 2018	Mark Kac monthly seminar, Utrecht, The Netherlands.
August 2018	Random Walks in Correlated and Dynamic Environments Texas A&M, USA.
October 2017	BMS-BMSMat Junior meeting, Barcelona, Spain.
April 2016	Random Spatial Processes and Dynamics conference, Texas A&M, USA.
March 2015	YEP XII conference, Eindhoven, The Netherlands.
March 2015	Workshop around activated random walks, Marseilles, France.

Additional seminar and conference talks

December 2021	Seminario de Probabilidades de Chile - joint Chilean probability seminar, online.
November 2021	Rough paths, SPDEs and related topics seminar, TU Berlin, Germany.
July 2021	10th World Congress in Probability and Statistics (online), prerecorded talk and a Q&A symposium in The Rough Paths Session.
May 2021	SPDEs & friends Conference (online), Discussant to Jeremy Quastel's talk. Berlin, Germany.
May 2021	Interacting Random Systems seminar at WIAS (online), Berlin, Germany.
October 2020	Probability, Stochastic Analysis & Statistics seminar (online), University of Pisa, Italy.
October 2020	Stochastic Analysis seminar (online), Imperial College London, United Kingdom.
October 2020	Interacting Random Systems seminar at WIAS (online), Berlin, Germany.
August, 2020	Bernoulli-IMS One World Symposium, Integrable Probability Session (online).
June 2020	Berlin-Oxford meeting (online), Berlin, Germany (invited speaker).
May 2020	Bristol probability seminar (online), Bristol, United Kingdom.
April 2020	TAU Horowitz Seminar (online), Tel Aviv, Israel.
April 2020	Stochastics research seminar (online), FU Berlin, Germany.
February 2020	Third Haifa Probability School, Technion, Israel.
December 2019	Stochastic analysis research group seminar at FU Berlin, Berlin, Germany.
November 2019	NYU Shanghai probability seminar, Shanghai, China.
November 2019	Interacting random systems seminar at WIAS, Berlin, Germany.
May 2019	Berlin-Oxford meeting, Berlin, Germany (invited speaker).
March 2019	Rough paths, SPDEs and related topics seminar, TU Berlin, Germany.
January 2019	Berlin-Leipzig meeting, Leipzig, Germany (invited speaker).
December 2018	Technion Probability Seminar, Haifa, Israel.
October 2018	Munich joint probability colloquium, LMU and TUM, Munich, Germany.
July 2018	IMS meeting 2018, Vilnius, Lithuania.
June 2018	Berlin-Oxford meeting, Berlin, Germany (invited speaker).
May 2018	Muenster probability seminar, Muenster, Germany.
April 2018	Munich joint probability colloquium, LMU and TUM, Munich, Germany.
March 2018	Bar-Ilan probability seminar, Ramat Gan, Israel.

December 2017	Second Haifa Probability School, Technion, Israel.
December 2017	Berlin-Leipzig meeting, Leipzig, Germany (invited speaker).
October 2017	Purdue Probability Seminar, West Lafayette, USA.
April 2017	Technion Probability Seminar, Haifa, Israel.
April 2017	Berlin Young Probabilists Seminar, WIAS Berlin, Germany (invited speaker).
January 2017	Stochastic processes and applications in biology seminar, TU Berlin, Germany.
December 2016	Berlin-Oxford meeting on Singular SPDEs, Oxford, United Kingdom (invited speaker).
October 2016	Rough paths, SPDEs and related topics seminar, TU Berlin, Germany.
May 2016	TAU Horowitz Seminar, Tel Aviv, Israel.
May 2016	GFAP seminar, Weizmann Institute of Science, Israel.
April 2016	Purdue probability seminar, West Lafayette, USA.
July 2015	SPA conference, Oxford, United Kingdom.
July 2015	WIAS probability seminar, Berlin, Germany.
May 2015	Graz probability seminar, Graz, Austria.
May 2015	Lyon probability seminar, Lyon, France.
January 2015	Marseille probability seminar, Marseilles, France.
August 2014	UCLA probability seminar, Los Angeles, USA.
July 2014	SPA conference, Buenos Aires, Argentina.
March 2014	11th German probability and statistics days, Ulm, Germany.
February 2014	Spatial models in statistical mechanics winter school, Darmstadt, Germany.
January 2014	Padova probability seminar, Padova, Italy.
December 2013	ETH and UZH joint seminar on stochastic processes, Zurich, Switzerland.
December 2013	Lyon university - informal probability seminar, Lyon, France.
October 2013	Bar Ilan probability seminar, Ramat Gan, Israel.
October 2013	ALEA in Europe school, CIRM, Marseille, France.
September 2013	Duisburg-Essen probability seminar, Essen, Germany.
August 2013	Prague summer school on mathematical statistical mechanics, Prague, Czech Republic.
February 2013	GFAP seminar, Weizmann Institute of Science, Israel.
November 2012	Munich joint probability colloquium, LMU and TUM, Munich, Germany.
June 2012	GFAP seminar, Weizmann Institute of Science, Israel.
June 2012	Discussion meeting in probability, Hebrew University in Jerusalem, Israel.
April 2012	Probability student seminar, Weizmann Institute of Science, Israel.
September 2011	Probability student seminar, Weizmann Institute of Science, Israel.
June 2011	Short communications session, 4th La Pietra week in Probability, Florence, Italy.
May 2011	Student probability day III, Weizmann Institute of Science, Israel.
May 2009	Set theory and its applications, IMU meeting, Weizmann Institute of Science, Israel.