

# PELEG MICHAELI

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## CONTACT INFORMATION

School of Mathematical Sciences  
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## EDUCATION

- Tel Aviv University** (2016–present) PhD, Pure Mathematics
- Title of thesis: *Random Trees and Related Models*
  - Supervisors: Prof. Michael Krivelevich and Prof. Asaf Nachmias
- Tel Aviv University** (2016) MSc, Pure Mathematics, *magna cum laude*
- Title of thesis: *The Trace of Random Walks on Random Graphs*
  - Supervisor: Prof. Michael Krivelevich
- Tel Aviv University** (2011) BSc, Pure Mathematics, *magna cum laude*
- Three semesters were studied at **The Open University of Israel**

## PROFESSIONAL EXPERIENCE

- Palgo Alpha Technology LTD** (2011–2014) Financial Mathematician
- Modelling and predicting financial markets
  - Developing trading algorithms

## PUBLICATIONS

- [1] Alan Frieze, Michael Krivelevich, Peleg Michaeli and Ron Peled, *On the trace of random walks on random graphs*, Proceedings of the London Mathematical Society (3) **116** (2018), no. 4, 847–877. Zbl [1386.05181](#), MR[3789834](#)
- [2] Michael Krivelevich and Peleg Michaeli, *Small subgraphs in the trace of a random walk*, Electronic Journal of Combinatorics **24** (2017), no. 1, Paper 1.28, 22. Zbl [1355.05232](#), MR[3625905](#)
- [3] Michael Anastos, Peleg Michaeli and Samantha Petti, *Thresholds in Random Motif Graphs*, Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques (APPROX/RANDOM 2019), 2019, pp. 66:1–66:19. MR[4012716](#)
- [4] Michael Krivelevich, Tamás Mészáros, Peleg Michaeli and Clara Shikhelman, *Greedy maximal independent sets via local limits*, 31th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2020), pp. 20:1–20:19. doi:[10.4230/LIPIcs.AofA.2020.20](#)
- [5] Peleg Michaeli, Asaf Nachmias and Matan Shalev, *The diameter of uniform spanning trees in high dimensions*, Probability Theory and Related Fields **179** (2021), no. 1-2, 261–294. Zbl [07329437](#), MR[4221658](#)
- [6] Lior Gishboliner, Michael Krivelevich and Peleg Michaeli, *Colour-biased Hamilton cycles in random graphs*, arXiv e-prints (July 2020). To appear in “Random Structures and Algorithms”. arXiv:[2007.12111](#)
- [7] Yahav Alon, Michael Krivelevich and Peleg Michaeli, *Spanning trees at the connectivity threshold*, arXiv e-prints (October 2020). arXiv:[2007.15519](#)
- [8] Lior Gishboliner, Michael Krivelevich and Peleg Michaeli, *Discrepancies of spanning trees and Hamilton cycles*, arXiv e-prints (December 2020). arXiv:[2012.05155](#)

#### AWARDS

**Rector's List for excellence in teaching** (twice) Tel Aviv University  
**School of mathematics award for excellence** (2016) Tel Aviv University  
**Eljoseph Award for excellence in teaching** (2011) Tel Aviv University  
**School of mathematics award for excellence** (2010) Tel Aviv University  
**President Award** (2008) The Open University of Israel  
**Dean's List, Faculty of Exact Sciences** (2007) Tel Aviv University

#### TALKS

**September 2020** *Greedy maximal independent sets via local limits*, The 31th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2020)

**September 2020** *Greedy maximal independent sets via local limits*, Probabilistic Combinatorics Online 2020, Moscow Institute of Physics and Technology (MIPT), Russia

**May 2020** *Greedy maximal independent sets via local limits*, Warwick Combinatorics Seminar, The University of Warwick, UK

**March 2020** *Greedy maximal independent sets via local limits*, FUB–TAU Workshop on Ramsey Theory, Tel Aviv University, Israel

**December 2019** *Greedy maximal independent sets via local limits*, Bar-Ilan Combinatorics Seminar, Bar-Ilan University, Ramat Gan, Israel

**July 2019** *Greedy maximal independent sets via local limits*, Workshop on Local Algorithms (WOLA 2019), ETH Zürich, Switzerland

**July 2019** *The diameter of uniform spanning trees*, The 19th International Conference on Random Structures and Algorithms (RSA 2019), ETH Zürich, Switzerland

**June 2018** *Symbolic discrete random variables*, Sage Days 94, Universidad de Zaragoza, Spain

**June 2018** *On the trace of random walks on random graphs*, The 40th Conference on Stochastic Processes and their Applications (SPA 2018), Chalmers University, Göteborg, Sweden

**August 2017** *On the trace of random walks on random graphs*, The 18th International Conference on Random Structures and Algorithms (RSA 2017), Instytut Kultury Europejskiej, Gniezno, Poland

**May 2017** *On the trace of random walks on random graphs*, Probability seminar, Technion, Israel

**May 2017** *Small subgraphs in the trace of a random walk*, Students Probability Day VI, Weizmann Institute of Science, Israel

**May 2016** *On the trace of random walks on random graphs*, Research Seminar in Combinatorics, Tel Aviv University, Israel

**February 2016** *The trace of random walks on random graphs*, TAU–FUB Workshop on Positional Games, Freie Universität Berlin, Germany

**May 2015** *The trace of random walks on random graphs*, Students Probability Day V, Weizmann Institute of Science, Israel

#### RESEARCH INTERESTS

- Random trees
- Random graphs
- Random walks on graphs
- Extremal graph theory

#### TEACHING EXPERIENCE

- Lecturer, *Combinatorics*, 4 semesters
- Lecturer, *Calculus*, 13 semesters
- Instructor, *Probability*, 1 semester
- Lecturer, *Math Refresher Workshop*, 2 semesters
- Instructor, *Linear Algebra*, 1 semester
- Tutor, *Gifted Young Students Program*, 2 years
- Instructor, *Set Theory*, 4 semesters

#### PROFESSIONAL SERVICE

- Referee for *Annales de l'Institut Henri Poincaré*, *European Journal of Combinatorics* and *Random Structures & Algorithms*
- Chairman of the Junior Staff Association at Tel Aviv University

#### OTHER ACTIVITIES

- August 2018** TAU–FUB Research Workshop on Graph and Hypergraph Coloring, Freie Universität Berlin, Germany
- September 2017** Elegance in Probability, Tel Aviv University, Israel
- July 2017** Spectral properties of large random objects, Institut des Hautes Études Scientifiques, France
- March 2017** FUB–TAU Research Workshop on Graph and Hypergraph Coloring, Tel Aviv University, Israel
- February 2017** Recent trends in the study of expanders and high dimensional expanders, Weizmann Institute of Science, Israel
- November 2016** Sage Days 79, The Hebrew University of Jerusalem, Israel
- August 2016** Hungarian–Israeli combinatorial days, Technion, Israel
- July 2016** High dimensional expanders, inverse theorems and PCPs, Weizmann Institute of Science, Israel
- June 2016** Annual Meeting of the Israel Mathematical Union
- January 2016** Combinatorics: Challenges and Applications, Tel Aviv University, Israel
- August 2015** Mostly Markov Mixing (Summer Workshop), Technion, Israel
- May 2015** Annual Meeting of the Israel Mathematical Union
- March 2015** FUB–TAU Workshop on Positional Games and Extremal Combinatorics, Tel Aviv University, Israel
- January 2015** The 18th Midrasha Mathematicae – In and Around Combinatorics, The Israel Institute for Advanced Studies, The Hebrew University of Jerusalem, Israel