

PELEG MICHAELI

CONTACT INFORMATION

Mathematical Institute

University of Oxford

✉ peleg.michaeli@maths.ox.ac.uk

🌐 www.maths.ox.ac.uk/people/peleg.michaeli

Academic profiles: [📄 arXiv](#) | [📄 DBLP](#) | [📄 ORCID](#) | [📄 Google Scholar](#) | [📄 Semantic Scholar](#)

ACADEMIC POSITIONS

University of Oxford, Oxford, UK (2023–)

Nicholas Kurti Junior Research Fellow, Brasenose College (2025–)

Marie Skłodowska–Curie Postdoctoral Fellow (2025–2027)

Postdoctoral Research Associate, hosted by Prof. Peter Keevash (2023–)

Carnegie Mellon University, Pittsburgh PA, USA (2021–2023)

Postdoctoral Associate

EDUCATION

Tel Aviv University, Israel (2021) PhD, Pure Mathematics

- Title of thesis: *Random Graphs, Spanning Trees and Related Topics*
- Supervisors: Prof. Michael Krivelevich and Prof. Asaf Nachmias

Tel Aviv University, Israel (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, Israel (2011) BSc, Pure Mathematics, *magna cum laude*

- Three semesters were studied at **The Open University of Israel**

INDUSTRY EXPERIENCE

Palgo Alpha Technology LTD (2011–2014) Financial Mathematician

- Developed and implemented models and algorithms for financial market predictions, applying skills in stochastic processes and data analysis

PUBLICATIONS

(Authors are listed in alphabetical order)

- [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 Krivelevich, Tamás Mészáros, Peleg Michaeli and Clara Shikhelman, *Greedy maximal independent sets via local limits*, 31st International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms (AofA 2020), pp. 20:1–20:19. (Extended abstract). Zbl [07651059](#), MR[4116413](#)

- [3] Michael Krivelevich, Tamás Mészáros, Peleg Michaeli and Clara Shikhelman, *Greedy maximal independent sets via local limits*, Random Structures & Algorithms **64** (2024), no. 4, 986–1015. Zbl [1539.05140](#), MR[4758151](#)
- [4] 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. Zbl [07650133](#), MR[4012716](#)
- [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 [1460.05057](#), MR[4221658](#)
- [6] Lior Gishboliner, Michael Krivelevich and Peleg Michaeli, *Color-biased Hamilton cycles in random graphs*, Random Structures & Algorithms **60** (2022), no. 3, 289–307. Zbl [1522.05262](#), MR[4388697](#)
- [7] Yahav Alon, Michael Krivelevich and Peleg Michaeli, *Spanning trees at the connectivity threshold*, SIAM Journal on Discrete Mathematics **36** (2022), no. 3, 1612–1626. Zbl [1493.05170](#), MR[4450290](#)
- [8] Lior Gishboliner, Michael Krivelevich and Peleg Michaeli, *Discrepancies of spanning trees and Hamilton cycles*, Journal of Combinatorial Theory. Series B **154** (2022), 262–291. Zbl [1483.05088](#), MR[4374842](#)
- [9] Lior Gishboliner, Michael Krivelevich and Peleg Michaeli, *Oriented discrepancy of Hamilton cycles*, Journal of Graph Theory **103** (2023), no. 4, 780–792. Zbl [7747702](#), MR[4606422](#)
- [10] Alan Frieze, Michael Krivelevich and Peleg Michaeli, *Fast construction on a restricted budget*, Random Structures & Algorithms **67** (2025), no. 4, e70031. [arXiv:2207.07251](#)
- [11] Alan Frieze and Peleg Michaeli, *Karp’s patching algorithm on random perturbations of dense digraphs*, arXiv e-prints (September 2022). [arXiv:2209.06279](#)
- [12] Tarun Krishna, Peleg Michaeli, Michail Sarantis, Fenglin Wang and Yiqing Wang, *Discrepancies of Subtrees*, Graphs and combinatorial optimization: from theory to applications, 2024, pp. 81–93. Zbl [08122506](#), MR[4738424](#)
- [13] Michael Krivelevich, Alan Lew and Peleg Michaeli, *Rigid partitions: from high connectivity to random graphs*, Journal of Combinatorial Theory. Series B **175** (2025), 126–170. Zbl [08093406](#), MR[4933733](#)
- [14] Michael Krivelevich, Alan Lew and Peleg Michaeli, *Minimum degree conditions for graph rigidity*, Bulletin of the London Mathematical Society **58** (2026), no. 1, Paper No. e70279. Zbl [08154525](#), MR[5019889](#)
- [15] Lior Gishboliner, Stefan Glock, Peleg Michaeli and Amedeo Sgueglia, *Defect and transference versions of the Alon–Frankl–Lovász theorem*, arXiv e-prints (March 2025). To appear in “Combinatorics, Probability and Computing”. [arXiv:2503.05089](#)
- [16] Peter Keevash and Peleg Michaeli, *A generalised Ramsey–Turán problem for matchings*, arXiv e-prints (September 2025). [arXiv:2509.10679](#)
- [17] Michael Krivelevich, Alan Lew and Peleg Michaeli, *Combinatorial sufficient conditions for graph rigidity and applications to random graphs*, arXiv e-prints (February 2026). [arXiv:2602.23713](#)
- [18] Peter Keevash and Peleg Michaeli, *A very robust Ramsey theorem for matchings*, arXiv e-prints (March 2026). [arXiv:2603.03139](#)

AWARDS

Nicholas Kurti Junior Research Fellowship (JRF) (2025–)

Brasenose College, University of Oxford

Marie Skłodowska–Curie Actions (MSCA) Postdoctoral Fellowship

UKRI Horizon Europe Guarantee (awarded 2023; tenure 2025–2027), University of Oxford

Fondation Sciences Mathématiques de Paris postdoctoral fellowship (2021; declined)

Laboratoire de Probabilités, Statistique et Modélisation (LPSM), Sorbonne

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

SELECTED RECENT TALKS

- February 2026** *Extremal and probabilistic aspects of graph rigidity*, Bristol Combinatorics Seminar, University of Bristol, UK
- December 2025** *Ramsey–Turán problems for matchings*, **invited talk**, Combinatorial Morning in Tel Aviv, Tel Aviv University, Israel
- September 2025** *Monochromatic matchings in almost-complete and random hypergraphs*, **invited minisymposia: Probabilistic Methods and Random Graphs**, 10th Cracow Conference on Graph Theory, AGH University of Kraków, Poland
- August 2025** *Monochromatic matchings in almost-complete and random hypergraphs*, The 22nd International Conference on Random Structures and Algorithms (RSA 2025), TU Wien, Austria
- July 2024** *Minimum degree conditions for graph rigidity*, 30th British Combinatorial Conference (BCC 2024), Queen Mary University of London, UK
- March 2024** *Rigid partitions*, **invited talk**, Probability and Combinatorics: Eighteenth Annual Workshop, McGill University's Bellairs Institute, Holetown, Barbados
- October 2023** *Competitive analysis in random graph processes*, Combinatorial Theory Seminar, University of Oxford, UK
- July 2023** *Rigid partitions*, **invited talk**, Combinatorics Day at TAU, Tel Aviv University, Israel
- June 2023** *Fast construction on a restricted budget*, The 21th International Conference on Random Structures and Algorithms (RSA 2023), Pittsburgh PA, USA
- June 2023** *Fast construction on a restricted budget*, **invited minisymposia: Random Structures and Random Processes**, Canadian Discrete and Algorithmic Mathematics (CanaDAM 2023), Winnipeg MB, Canada
- March 2023** *Constructing quickly and on a restricted budget*, Algorithms, Combinatorics and Optimization Research Network (ACORN) Meeting 2023, Georgia Tech, Atlanta GA, USA
- August 2022** *Oriented discrepancy of Hamilton cycles*, The 20th International Conference on Random Structures and Algorithms (RSA 2021-22), Instytut Kultury Europejskiej, Gniezno, Poland
- June 2022** *Oriented discrepancy of Hamilton cycles*, SIAM Conference on Discrete Mathematics (DM22), Carnegie Mellon University, Pittsburgh PA, USA
- March 2022** *Greedy maximal independent sets via local limits*, Combinatorics, Physics and Probability Seminar, Center of Mathematical Sciences and Applications, Harvard University, Cambridge MA, USA
- July 2021** *Discrepancies of spanning trees*, 28th British Combinatorial Conference (BCC 2021), Durham University, UK

UNDERGRADUATE RESEARCH SUPERVISED

- 2022** *Discrepancy of Hamilton cycles in dense graphs*, CMU “Summer Undergraduate Research Fellowships” (SURF), Tony Yu
- 2022** *Discrepancies of Trees*, CMU “Summer Experiences in Mathematical Sciences” (SEMS), Tarun Krishna, Fenglin Wang and Yiqing Wang, resulted in a coauthored paper

TEACHING EXPERIENCE

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

PROFESSIONAL SERVICE

- Referee for *Annales de l'Institut Henri Poincaré*, *Combinatorics*, *Probability & Computing*, *Computer Science Review*, *Discrete Applied Mathematics*, *Discrete Mathematics*, *The Electronic Journal of Combinatorics*, *European Journal of Combinatorics*, *Fields Institute Communications*, *The Journal of Combinatorial Theory, Series B*, *The Journal of Graph Theory*, *Random Structures & Algorithms*, and *SIAM Journal on Discrete Mathematics*
- Chairman (2020–2021) of the Junior Staff Association at Tel Aviv University