

Curriculum Vitae

Ori Gurel-Gurevich

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The Hebrew University of Jerusalem,
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Research interests: Probability theory, especially reversible Markov chains, circle packing, random graphs and probabilistic algorithms.

Work Experience:

2014- : Hebrew University of Jerusalem - Einstein Institute of Mathematics (senior lecturer)
2011-2013: University of British Columbia - Mathematics Department (PIMS postdoctoral fellow)
2010-2011: University of British Columbia - Mathematics Department (postdoctoral fellow)
2008-2010: Microsoft Research - Theory Group (postdoc researcher)
2002-2005: IDF Intelligence Corps - Mathematical Research and Development (consultant).
1994-2000: IDF Intelligence Corps - Mathematical Research and Development (project leader).

Teaching Experience:

Spring 2013/4 Math 80421 (Probability theory II), Hebrew University of Jerusalem
Winter 2012 term 1 Math 200 (Calculus III), University of British Columbia
Summer 2012 term 1 Math 200/253 (Multivariable Calculus), University of British Columbia
Winter 2011 term 1 Math 253 (Multivariable Calculus), University of British Columbia
Winter 2010 term 2 Math 200 (Calculus III), University of British Columbia
Fall 2007/8 Graduate course on Markov chains mixing times, Weizmann Institute of Science
Fall 2005/6 Graduate course on random walks and percolation, Weizmann Institute of Science
Fall 2003/4 Calculus I for economists, Tel-Aviv University

Education:

PhD in Mathematics from the Weizmann Institute of Science, Israel, (2008). PhD thesis title: "Random walks and Random Structures". PhD advisor: Prof. Itai Benjamini.
MSc in Mathematics from Tel-Aviv University (2003, magna cum laude). M.Sc. Thesis title: "Pursuit-Evasion Games with Incomplete Information in Discrete Time". M.Sc. Advisor: Prof. Eilon Solan.
BSc in Mathematics with minor in Computer Science from Tel-Aviv University (1993, summa cum laude).

Awards:

2013 Allon Fellowship for outstanding new faculty members in Israeli universities.
2007 Otto Schwartz Fellowship for Ph.D. Studies, Feinberg Graduate School, Weizmann Institute of Science.
1990-1993 Three annual Deans list awards, Faculty of Exact Sciences, Tel Aviv University.

Publications and Preprints:

- [1] I. Benjamini, O. Gurel-Gurevich and R. Lyons, (2007) *Recurrence of random walk traces*, Annals of Probability, **35**, no. 2, 732-738
- [2] I. Benjamini, O. Gurel-Gurevich and B. Solomyak: *Branching random walk with exponentially decreasing steps, and stochastically self-similar measures* Transactions of the AMS, **361** (2009), no. 3, 1625-1643
- [3] I. Benjamini, O. Gurel-Gurevich and R. Izkovsky: *The Biham-Middleton-Levine traffic model for a single junction* In and out of equilibrium: probability with physics flavor II (2008), Birkhauser's "Progress in Probability" series, edited by ME Vares, V Sidoravicius
- [4] G. Amir and O. Gurel-Gurevich: *The diameter of random cayley graphs on Z_q* Groups – Complexity – Cryptology, **2** (2010) no. 1, 59-66
- [5] O. Gurel-Gurevich: *Pursuit-evasion games with incomplete information in discrete time* International Journal of Game Theory, **38** (2009), no. 3, 367-376
- [6] N. Alon, O. Gurel-Gurevich and E. Lubetzky: *Choice-memory tradeoff in allocations* Annals of Applied Probability, **20** (2010) no. 4, 1470-1511 (preliminary version FOCS 2009)
- [7] G. Amir, O. Gurel-Gurevich, E. Lubetzky and A. Singer: *Giant components in biased graph processes* Indiana University Mathematical Journal, **59** (2011), no. 6, 1893-1930
- [8] O. Angel, I. Benjamini, O. Gurel-Gurevich, T. Meyerovitch and R. Peled: *Stationary map coloring* Annales de l'Institut Henri Poincaré, **48**, (2012) no. 2, 327-342
- [9] I. Benjamini, O. Gurel-Gurevich and O. Schramm: *Cutpoints and resistance of random walk paths* Annals of Probability, **39**, no. 3 (2011), 1122-1136
- [10] G. Amir and O. Gurel-Gurevich: *On fixation of activated random walks*, Electronic Communications in Probability, **15** (2010) 119-123
- [11] O. Gurel-Gurevich and R. Peled: *Poisson thickening* Israel Journal of Mathematics, **196** (2013), 215-234
- [12] Y. Azar, O. Gurel-Gurevich, E. Lubetzky and T. Moscibroda: *Optimal whitespace synchronization strategies* Proc. of the 19th European Symposium on Algorithms (ESA 2011)
- [13] Y. Dekel, O. Gurel-Gurevich and Y. Peres: *Finding hidden cliques in linear time with high probability* Combinatorics, Probability and Computing, **23** (2014) no.1, 29-49
- [14] O. Gurel-Gurevich and A. Nachmias: *Nonconcentration of return times* Annals of Probability, **41** (2013), no. 2, 848-870
- [15] I. Benjamini, O. Gurel-Gurevich and B. Morris: *Linear cover time is exponentially unlikely* Probability Theory and Related Fields, **155** (2011), no.1-2, 451-461
- [16] O. Gurel-Gurevich and A. Nachmias: *Recurrence of planar graph limits* Annals of Mathematics, **177** (2013) no. 2, 761-781
- [17] O. Gurel-Gurevich, Y. Peres and O Zeitouni: *Localization for controlled random walks and martingales* Electronic Communications in Probability, **19** (2014) 1-8
- [18] O. Angel, M. Barlow, O. Gurel-Gurevich and A. Nachmias: *Boundaries of planar graphs, via circle packings* Annals of Probability, to appear

Additional Information:

Languages: Hebrew (native), English (fluent).

Programming Languages: C, Pascal, some C++, some python.