

# Curriculum Vitae

## Eyal Lubetzky

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New York, NY 10012, USA

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### **RESEARCH AREA:**

Probability Theory and Combinatorics

### **APPOINTMENTS:**

- 2017–present:                      Professor of Mathematics, Courant Institute of Mathematical Sciences, New York University.
- 2014–2017:                      Associate Professor of Mathematics, Courant Institute of Mathematical Sciences, New York University.
- 2013–2014:                      Senior Researcher, Theory Group of Microsoft Research.
- 2008–present:                      Affiliated faculty (Assistant Professor / Associate Professor), Mathematics Department, University of Washington.
- 2008–2013:                      Researcher, Theory Group of Microsoft Research.

### **EDUCATION:**

- 2007–2008:                      Post-doctoral Researcher, Theory Group of Microsoft Research.
- 2002–2007:                      Ph.D. in Mathematics (with distinction), Tel-Aviv University  
Performed under the supervision of Prof. Noga Alon.  
Thesis title: Graph powers and related extremal problems.
- 1999–2002:                      B.Sc. in Mathematics and Computer Science (Summa Cum Laude)  
Tel-Aviv University

### **AWARDS AND HONORS:**

2016–2017      AMS Centennial Fellowship  
2016              Fellow of the Institute of Mathematical Statistics  
2013              Rollo Davidson Prize  
2007              Rothschild Postdoctoral Fellowship (not used)  
2006              The Charles Clore Foundation Fellowship for Ph.D. students  
2006              The Celia and Marcos Maus Annual Prize for Ph.D. students  
1999–2001      Three annual Chairman of the Israeli Parliament (Knesset) and Chairman of the Israeli Education Committee awards

- 1999–2001 Three annual Provost’s list awards, Faculty of Exact Sciences, Tel Aviv University  
 1999–2001 Three annual Dean’s list awards, Faculty of Exact Sciences, Tel Aviv University  
 2000, 2001 Two Wolf Scholarship awards for B.Sc. students  
 2001 Excellence award, School of Computer Science, Tel Aviv University  
 1999 Award of excellence for first year B.Sc. students, Schools of Computer Science and Mathematics, Tel Aviv University

**SELECTED INVITED TALKS IN CONFERENCES / WORKSHOPS:**

- IHÉS mini-course at the Probability Summer School for graduate students, Paris, Jul 2017.
- Random Structures & Algorithms, Pittsburgh, Jul 2015 (*plenary address*).
- Stochastic Processes and Applications (SPA), Buenos Aires, Aug 2014 (*plenary address*).
- Invited course at the 10<sup>th</sup> Cornell Probability Summer School, Jul 2014.
- EuroComb 2011, Budapest, Aug 2011 (*plenary address*).
- La-Pietra 2011 conference on Probability, Florence, Jun 2011 (*5-lecture mini-course*).

**SELECTED INVITED TALKS IN COLLOQUIA / SEMINARS:**

- Yale Colloquium, Mathematics Department, Sep 2016.
- UCLA Colloquium, Mathematics Department, Jan 2014.
- Hebrew University Colloquium, Mathematics Department, Dec 2012.
- Stanford University Colloquium, Mathematics Department, May 2012.
- Tel Aviv University Colloquium, Mathematics Department, Jun 2011.
- IAS (Princeton) Discrete Mathematics Seminar, Apr 2010.

**SELECTED WORKS:**

- E. Lubetzky and A. Sly,  
Information percolation and cutoff for the stochastic Ising model,  
*Journal of the American Mathematical Society* 29 (2016), 729–774.
- T. Bohman, A. Frieze and E. Lubetzky,  
Random triangle removal,  
*Advances in Mathematics* 280 (2015), 379–438.
- E. Lubetzky and A. Sly,  
Cutoff for the Ising model on the lattice,  
*Inventiones Mathematicae* 191 (2013), no. 3, 719–755.
- E. Lubetzky, B. Sudakov and V. Vu,  
Spectra of lifted Ramanujan graphs,  
*Advances in Mathematics* 227 (2011), no. 4, 1612–1645.
- E. Lubetzky and A. Sly,  
Cutoff phenomena for random walks on random regular graphs,  
*Duke Mathematical Journal* 153 (2010), no. 3, 475–510.
- N. Alon and E. Lubetzky,  
Uniformly cross intersecting families,  
*Combinatorica* 29 (2009), no. 4, 389–431.

## **INTERNS MENTORED:**

- Yufei Zhao Summer 2012 (while a graduate student at MIT)
- Robin Moser Winter 2009 (while a graduate student at ETH Zurich)
- Po-Shen Loh Summer 2009 (while a graduate student at Princeton University)
- Allan Sly Summer 2008 (while a graduate student at UC Berkeley)

## **SERVICES:**

- Workshop co-organization: “Markov chain mixing times”, AIM, Jun 2016.
- Associate Editor: Probability Theory and Related Fields, Sep 2010 – Aug 2015.
- Associate Editor: Annals of Applied Probability, Jan 2009 – Dec 2015.
- Workshop co-organization: “Probabilistic & Extremal Combinatorics”, IMA, Sep 2014.
- Invited session organization in Stochastic Processes & Applications 2013.
- Workshop co-organization: “Percolation & Interacting Systems”, MSRI, Berkeley, Feb 2012.
- Program Committee, SODA 2010 (ACM-SIAM Symposium on Discrete Algorithms).

## **TEACHING:**

- Courant Institute, New York University: *Honors Calculus II* (Spring ‘16), *Probability Limit Theorems I* (Fall ‘17, ‘16, ‘15), *Martingale & Concentration* (Fall ‘17), *Markov chain analysis* (Spring ‘15).
- University of Washington: *Advanced topics in Probability* (Spring ‘09), *Martingales & Concentration* (Fall ‘12), *Probabilistic Combinatorics* (Spring ‘10) (Highly rated course recognition, College of Engineering),

## **LIST OF PUBLICATIONS:**

- R. Gheissari and E. Lubetzky,  
The effect of boundary conditions on mixing of 2D Potts models at discontinuous phase transitions,  
*Electronic Journal of Probability*, to appear.
- A. Ben-Hamou, E. Lubetzky, and Y. Peres,  
Comparing mixing times on sparse random graphs,  
*Annales de l’Institut Henri Poincaré*, to appear.  
Preliminary version appeared in the *Proc. of the 29rd ACM-SIAM SODA* (2018), 1734–1740.
- R. Gheissari, E. Lubetzky and Y. Peres,  
Exponentially slow mixing in the mean-field Swendsen-Wang dynamics,  
*Proc. of the 29rd ACM-SIAM SODA* (2018), 994–1046.
- R. Gheissari and E. Lubetzky,  
Mixing times of critical two-dimensional Potts models,  
*Communications in Pure and Applied Mathematics* 71 (2018), no. 5, 994–1046.
- N. Berestycki, E. Lubetzky, Y. Peres and A. Sly,  
Random walks on the random graph,  
*Annals of Probability* 46 (2018), no. 1, 456–490.
- E. Lubetzky and A. Sly,  
Universality of cutoff for the Ising model,  
*Annals of Probability* 45 (2017), no. 6A, 3664–3696.

- B.B. Bhattacharya, S. Ganguly, E. Lubetzky and Y. Zhao,  
Upper tails and independence polynomials in random graphs,  
*Advances in Mathematics* 319 (2017), 313–347.
- E. Lubetzky and Y. Zhao,  
On the variational problem for upper tails of triangle counts in sparse random graphs,  
*Random Structures and Algorithms* 50 (2017), no. 3, 420–436.
- J. Kahn, E. Lubetzky and N. Wormald,  
Cycle factors and renewal theory,  
*Communications in Pure and Applied Mathematics* 70 (2017), no. 2, 289–339.
- E. Lubetzky and Y. Peres,  
Cutoff on all Ramanujan graphs,  
*Geometric and Functional Analysis* 26 (2016), no. 4, 1190–1216.
- E. Lubetzky, F. Martinelli and A. Sly,  
Harmonic pinnacles in the Discrete Gaussian model,  
*Communications in Mathematical Physics* 344 (2016), no. 3, 673–717.
- J. Kahn, E. Lubetzky and N. Wormald,  
The threshold for combs in random graphs,  
*Random Structures and Algorithms* 48 (2016), no. 4, 794–802.
- E. Lubetzky and A. Sly,  
Information percolation and cutoff for the stochastic Ising model,  
*Journal of the American Mathematical Society (JAMS)* 29 (2016), 729–774.
- C. Caputo, E. Lubetzky, F. Martinelli, A. Sly and F.L. Toninelli,  
Scaling limit and cube-root fluctuations in SOS surfaces above a wall,  
*Journal of the European Mathematical Society (JEMS)* 18 (2016), no. 5, 931–995.
- E. Lubetzky and J. Steif,  
Strong noise sensitivity and random graphs,  
*Annals of Probability* 43 (2015), no. 6, 3239–3278.
- T. Bohman, A. Frieze and E. Lubetzky,  
Random triangle removal,  
*Advances in Mathematics* 280 (2015), 379–438.
- E. Lubetzky and A. Sly,  
An exposition to information percolation for the Ising model,  
*Annales de la Faculté des Sciences de Toulouse* 29 (2015), no. 4, 745–761.
- E. Lubetzky and Y. Zhao,  
On replica symmetry of large deviations in random graphs,  
*Random Structures and Algorithms* 47 (2015), no. 1, 109–146.
- S. Ganguly, E. Lubetzky and F. Martinelli,  
Cutoff for the east process,  
*Communications in Mathematical Physics* 335 (2015), no. 3, 1287–1322.
- C. Cooper, A. Frieze and E. Lubetzky,  
Cover time of a random graph with given degree sequence II: Allowing vertices of degree two,  
*Random Structures and Algorithms* 45 (2014), no. 4, 627–674.
- M. Krivelevich, E. Lubetzky and B. Sudakov,  
Cores of random graphs are born Hamiltonian,  
*Proceedings of the London Mathematical Society* 109 (2014), no. 1, 161–188.

- E. Lubetzky and A. Sly,  
Cutoff for general spin systems with arbitrary boundary conditions,  
*Communications in Pure and Applied Mathematics* 67 (2014), no. 6, 982–1027.
- C. Caputo, E. Lubetzky, F. Martinelli, A. Sly and F.L. Toninelli,  
Dynamics of (2+1)D SOS surfaces above a wall: slow mixing induced by entropic repulsion,  
*Annals of Probability* 42 (2014), no. 4, 1516–1589.
- J. Ding, E. Lubetzky and Y. Peres,  
Anatomy of the giant component: The strictly supercritical regime,  
*European Journal of Combinatorics* 35 (2014), 155–168.
- E. Lubetzky and A. Sly,  
Cutoff for the Ising model on the lattice,  
*Inventiones Mathematicae* 191 (2013), no. 3, 719–755.
- M. Krivelevich, E. Lubetzky and B. Sudakov,  
Longest cycles in sparse random digraphs,  
*Random Structures and Algorithms* 43 (2013), no. 1, 1–15.
- E. Lubetzky, F. Martinelli, A. Sly and F.L. Toninelli,  
Quasi-polynomial mixing of 2D stochastic Ising model with "plus" boundary up to criticality,  
*Journal of the European Mathematical Society* 15 (2013), no. 2, 339–386.
- P.-S. Loh and E. Lubetzky,  
Stochastic coalescence in logarithmic time,  
*Annals of Applied Probability* 23 (2013), no. 2, 492–528.  
Preliminary version appeared in the *Proc. of the 23rd ACM-SIAM SODA* (2012), 541–551.
- A. Blasiak, R. Kleinberg and E. Lubetzky,  
Broadcasting with side information: bounding and approximating the broadcast rate,  
*IEEE Transactions on Information Theory* 59 (2013), no. 9, 5811–5823.
- C. Caputo, E. Lubetzky, F. Martinelli, A. Sly and F.L. Toninelli,  
The shape of the (2+1)D SOS surface above a wall,  
*Comptes Rendus Mathématique* 350 (2012), 703–706.
- E. Lubetzky and A. Sly,  
Critical Ising on the square lattice mixes in polynomial time,  
*Communications in Mathematical Physics* 313 (2012), no. 3, 815–836.
- J. Ding, E. Lubetzky and Y. Peres,  
Mixing time of near-critical random graphs,  
*Annals of Probability* 40 (2012), no. 3, 979–1008.
- P. Cuff, J. Ding, O. Louidor, E. Lubetzky, Y. Peres and A. Sly,  
Glauber Dynamics for the mean-field Potts Model,  
*Journal of Statistical Physics* 149 (2012), no. 3, 432–477.
- N. Alon, O. Angel, I. Benjamini and E. Lubetzky,  
Sums and products along sparse graphs,  
*Israel Journal of Mathematics* 188 (2012), no. 1, 353–384.
- E. Lubetzky, B. Sudakov and V. Vu,  
Spectra of lifted Ramanujan graphs,  
*Advances in Mathematics* 227 (2011), no. 4, 1612–1645.
- J. Ding, J.H. Kim, E. Lubetzky and Y. Peres,  
Anatomy of a young giant component in the random graph,  
*Random Structures and Algorithms* 39 (2011), no. 2, 139–178.

- A. Blasiak, R. Kleinberg and E. Lubetzky,  
Lexicographic products and the power of non-linear network coding,  
*Proc. of the 52nd IEEE FOCS* (2011), 609–619.
- A. Azar, O. Gurel-Gurevich, E. Lubetzky and T. Moscibroda,  
Optimal whitespace synchronization strategies,  
*European Symposium on Algorithms (ESA)* (2011), 713–722.
- E. Lubetzky and A. Sly,  
Explicit expanders with cutoff phenomena,  
*Electronic Journal of Probability* 16 (2011), 419–435.
- J. Ding, E. Lubetzky and Y. Peres,  
Mixing time of critical Ising model on trees is polynomial in the height,  
*Communications in Mathematical Physics* 295 (2010), no. 1, 161–207.
- E. Lubetzky and A. Sly,  
Cutoff phenomena for random walks on random regular graphs,  
*Duke Mathematical Journal* 153 (2010), no. 3, 475–510.
- M. Krivelevich, E. Lubetzky and B. Sudakov,  
Hamiltonicity thresholds in Achlioptas processes,  
*Random Structures and Algorithms* 37 (2010), no. 1, 1–24.
- J. Ding, J.H. Kim, E. Lubetzky and Y. Peres,  
Diameters in supercritical random graphs via first passage percolation,  
*Combinatorics, Probability and Computing* 19 (2010), no. 5–6, 729–751.
- J. Ding, E. Lubetzky and Y. Peres,  
Total variation cutoff in birth-and-death chains,  
*Probability Theory and Related Fields* 146 (2010), no. 1, 61–85.
- 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 appeared in the *Proc. of the 50th IEEE FOCS* (2009), 230–238.
- T. Bohman, A. Frieze and E. Lubetzky,  
Random greedy triangle-packing beyond the  $7/4$  barrier,  
*Journal of Combinatorics* 1 (2010), no. 3–4, 477–488.
- G. Amir, O. Gurel-Gurevich, E. Lubetzky, A. Singer,  
Giant components in biased graph processes,  
*Indiana University Mathematics Journal*, 59 (2010), no. 6, 1893–1930.
- J. Ding, E. Lubetzky and Y. Peres,  
The mixing time evolution of Glauber dynamics for the mean-field Ising model,  
*Communications in Mathematical Physics* 289 (2009), 725–764.
- N. Alon and E. Lubetzky,  
Poisson approximation for non-backtracking random walks,  
*Israel Journal of Mathematics* 174 (2009), 227–252.
- N. Alon and E. Lubetzky,  
Uniformly cross intersecting families,  
*Combinatorica* 29 (2009), no. 4, 389–431.
- J. Ding, E. Lubetzky and Y. Peres,  
Censored Glauber Dynamics for the mean field Ising Model,  
*Journal of Statistical Physics* 137 (2009), no. 3, 407–458.

- E. Lubetzky and U. Stav,  
Non-linear index coding outperforming the linear optimum,  
*IEEE Transactions on Information Theory* 55 (2009), 3544–3551.  
Preliminary version appeared in *Proc. of the 48th IEEE FOCS* (2007), 161–167.
- N. Alon, A. Hasidim, E. Lubetzky, U. Stav and A. Weinstein,  
Broadcasting with side-information,  
*Proc. of the 49th IEEE FOCS* (2008), 823–832.
- I. Benjamini, S. Haber, M. Krivelevich and E. Lubetzky,  
The isoperimetric constant of the random graph process,  
*Random Structures and Algorithms* 32 (2008), 101–114.
- N. Alon, I. Benjamini, E. Lubetzky and S. Sodin,  
Non-backtracking random walks mix faster,  
*Communications in Contemporary Mathematics* 9 (2007), 585–603.
- N. Alon and E. Lubetzky,  
Privileged users in zero-error transmission over a noisy channel,  
*Combinatorica* 27 (2007), 737–743.
- N. Alon and E. Lubetzky,  
Graph powers, Delsarte, Hoffman, Ramsey and Shannon,  
*SIAM J. Discrete Math* 21 (2007), 329–348.
- N. Alon and E. Lubetzky,  
Codes and Xor graph products,  
*Combinatorica* 27 (2007), 13–33
- N. Alon and E. Lubetzky,  
Independent sets in tensor graph powers,  
*Journal of Graph Theory* 54 (2007), 73–87.
- T. Amiaz, N. Kiryati, E. Lubetzky,  
Coarse to Over-Fine Optical Flow Estimation,  
*Pattern Recognition* 40 (2007), 2496–2503.
- N. Alon and E. Lubetzky,  
The Shannon capacity of a graph and the independence numbers of its powers,  
*IEEE Transactions on Information Theory* 52 (2006), 2172–2176.
- Y. Azar, M. Feder, E. Lubetzky, D. Rajwan and N. Shulman,  
The Multicast Bandwidth Advantage in Serving a Web Site,  
*Proc. of 3rd NGC* (2001), 88–99.
- G. Amir and E. Lubetzky,  
On two biased graph processes,  
preprint.
- A. Dembo and E. Lubetzky,  
Empirical spectral distributions of sparse random graphs,  
submitted.
- R. Gheissari and E. Lubetzky,  
Quasi-polynomial mixing of critical 2D random cluster models,  
submitted.
- E. Lubetzky, A. Lubotzky and O. Parzanchevski,  
Random walks on Ramanujan complexes and digraphs,  
submitted.

- E. Lubetzky and A. Sly,  
Fast initial conditions for Glauber dynamics,  
submitted.
- R. Gheissari, E. Lubetzky and Y. Peres,  
Concentration inequalities for polynomials of contracting Ising models,  
submitted.
- A. Dembo and E. Lubetzky,  
A large deviation principle for the Erdős-Rényi uniform random graph,  
submitted.

### **TALKS IN CONFERENCES / WORKSHOPS:**

- Workshop on Algorithms and Randomness, Atlanta, May 2018.
- Workshop on Probabilistic and Extremal Combinatorics, Harvard University, Feb 2018.
- MCA session on Probability Theory, Montreal, July 2017.
- MCA session on Extremal and Probabilistic Combinatorics, Montreal, July 2017.
- IHÉS mini-course at the Probability Summer School for graduate students, Paris, Jul 2017.
- Workshop on Dynamics aging and universality, Courant Institute, Jun 2017.
- AIM workshop: Phase transitions in randomized computational problems, San Jose, Jun 2017
- AMS Spring Central Sectional Meeting, Indiana University, Apr 2017.
- Simons workshop on Expanders and Extractors, Berkeley, Feb 2017.
- Oberwolfach workshop on Large Scale Stochastic Dynamics, Nov 2016.
- AIM workshop on Markov Chain mixing times, San Jose, Jun 2016.
- ETH Zurich workshop on Probabilistic and Extremal Combinatorics, May 2016.
- Oberwolfach workshop on Probabilistic and Extremal Combinatorics, Apr 2016.
- Simons workshop on Phase Transitions, Berkeley, Feb 2016.
- AMS Fall Eastern Sectional Meeting, Rutgers University, Nov 2015
- AMS Fall Western Sectional Meeting, Fullerton, Oct 2015 (*plenary address*).
- The 37th Midwest Probability Colloquium, Chicago, Oct 2015.
- BIRS workshop on Extremal & Probabilistic Combinatorics, Aug 2015.
- Random Structures & Algorithms, Pittsburgh, Jul 2015 (*plenary address*).
- Southeast Probability Seminar, Duke University, May 2015.
- ICERM workshop “Crystals, quasicrystals and random networks,” Providence, Feb 2015.
- IMPA workshop on Discrete Markov chains, Rio de Janeiro, Oct 2014.
- Stochastic Processes and Applications (SPA), Buenos Aires, Aug 2014 (*plenary address*).
- Invited main course at the 10<sup>th</sup> Cornell Probability Summer School, Jul 2014.
- Workshop on Phase transitions in discrete structures, Warwick, May 2014.
- Paul Erdős Lecture Series 2014, Memphis, Mar 2014.
- Workshop on Markov chains “Talking across fields”, Toulouse, Mar 2014.
- Oberwolfach workshop on Combinatorics, Jan 2014.
- Discrete Random Geometry workshop, Varbergs, Sweden, Aug 2013.
- IPAM workshop on Extremal and Probabilistic Combinatorics, Los Angeles, Jan 2013.
- RIMS workshop “Discrete Geometric Analysis,” Kyoto, Aug 2012.
- BIRS workshop on New Trends & Directions in Combinatorics, Banff, Aug 2012.
- Workshop on Computation and Phase Transitions, Atlanta, Jun 2012.



- Paul Erdős Lecture Series 2012, Memphis, May 2012.
- The 10<sup>th</sup> Northeast Probability Seminar, Courant Institute (NYU), Nov 2011.
- EuroComb 2011, Budapest, Aug 2011 (*plenary address*).
- La-Pietra 2011 conference on Probability, Florence, Jun 2011 (*5-lecture mini-course*).
- AMS Meeting, Combinatorics Section, Los Angeles, Oct 2010.
- SIAM Conference on Discrete Math, Austin, Jun 2010.
- IPAM workshop on Probabilistic Techniques and Applications, Los Angeles, Oct 2009.
- The 50<sup>th</sup> IEEE Symposium on Foundations of Computer Science (FOCS), Atlanta, Oct 2009.
- The International Congress on Mathematical Physics, Prague, Aug 2009.
- BIRS workshop on Extremal and Probabilistic Combinatorics, Banff, Aug 2009.
- Oberwolfach workshop on Combinatorics & Probability, Apr 2009.
- Annual Northwest Probability Seminar, Seattle, Nov 2008.
- European Conference on Complex Systems, Jerusalem, Sep 2008.
- BIRS workshop on Phase Transitions, Banff, Jun 2008.
- Newton Institute CSM Workshop on MCMC Methods, Cambridge (UK), Mar 2008.
- National AMS Meeting, Probability Theory section, San Diego, Jan 2008.
- The 48<sup>th</sup> IEEE Symposium on Foundations of Computer Science (FOCS), Oct 2007.
- AMS Meeting, Combinatorics & Probability section, Rutgers University, Oct 2007.
- Random Structures and Algorithms Conference, Tel Aviv, May 2007.
- Oberwolfach workshop on Combinatorics, Probability & Computing, Oct 2006.
- Israel Mathematical Union Annual Meeting, Neve Ilan, May 2006.
- Random Structures and Algorithms Conference, Poznan, Aug 2005.

#### **TALKS IN SEMINARS / COLLOQUIA:**

- IAS (Princeton) Discrete Mathematics Seminar, Apr 2018.
- Rutgers Discrete Mathematics Seminar, Mar 2018.
- Indiana University Probability Seminar, Apr 2017.
- Duke University Probability Seminar, Mar 2017.
- Yale University Colloquium, Mathematics Department, Sep 2016.
- University of Maryland Colloquium, Mathematics Department, Apr 2016.
- Rutgers Discrete Mathematics Seminar, Apr 2016.
- University of Montreal Probability Seminar, Mar 2016.
- Hebrew University of Jerusalem, Combinatorics seminar, Jan 2016.
- Weizmann Institute of Science GAFA & Probability seminar, Jan 2016.
- MIT Probability seminar, December 2015.
- Yale Combinatorics & Probability seminar, December 2015.
- University of Chicago Probability Seminar, May 2015.
- Rutgers Discrete Mathematics Seminar, Apr 2015.
- Princeton Probability Seminar, Mar 2015.
- CUNY Probability Seminar, Dec 2014.
- Harvard Probability Seminar, Nov 2014.
- IAS (Princeton) Discrete Mathematics Seminar, Nov 2014.
- Courant-Columbia Probability Seminar Series, Oct 2014.

- Harvard Applied Math Colloquium, Feb 2014.
- Stanford Probability Seminar, Jan 2014.
- UCLA Colloquium, Mathematics Department, Jan 2014.
- Weizmann Institute of Science GAFA & Probability Seminar, Jan 2014.
- Tel Aviv University Combinatorics Seminar, Jan 2014.
- University of Washington Probability Seminar, Dec 2013.
- UBC Probability Seminar, Feb 2013.
- Hebrew University Colloquium, Mathematics Department, Dec 2012.
- Tel Aviv University Colloquium, Mathematics Department, Dec 2012.
- Technion Colloquium, Mathematics Department, Dec 2012.
- MIT Probability Seminar, Dec 2012.
- Stanford Colloquium, Mathematics Department, May 2012.
- UC Berkeley Probability Seminar, Nov 2011.
- Tel Aviv University Colloquium, Mathematics Department, Jun 2011.
- Weizmann Institute of Science GAFA & Probability Seminar, May 2011.
- Tel Aviv University Combinatorics Seminar, May 2011.
- University of Washington Colloquium, Mathematics Department, May 2011.
- University of Washington Combinatorics Seminar, April 2011.
- MSR Theory day, Redmond, Mar 2011.
- UCLA Colloquium, Mathematics Department, Oct 2010.
- UCLA Combinatorics Seminar, May 2010.
- IAS (Princeton) Discrete Mathematics Seminar, April 2010.
- MIT Probability Seminar, Mar 2010.
- Harvard Probability Seminar, Mar 2010.
- MIT Combinatorics Seminar, Mar 2010.
- Courant Institute (NYU) Probability Seminar, Mar 2010.
- University of Rome Tre Mathematical Physics Seminar, Feb 2010.
- UC San Diego Colloquium, Mathematics Department, Feb 2010.
- Weizmann Institute of Science GAFA & Probability Seminar, Dec 2009.
- Tel Aviv University Combinatorics Seminar, Dec 2009.
- Cornell Probability Seminar, Nov 2009.
- Cornell Computer Science Theory Seminar, Nov 2009.
- Georgia Tech Combinatorics Seminar, Oct 2009.
- CMU Combinatorics Seminar, Sep 2009.
- Weizmann Institute of Science GAFA & Probability Seminar, Dec 2008.
- IAS (Princeton) Discrete Mathematics Seminar, Dec 2008.
- CMU Combinatorics Seminar, Nov 2008.
- UCLA Combinatorics Seminar, Nov 2008.
- UCLA Probability Seminar, Nov 2008.
- University of Washington Computer-Science Seminar, Oct 2008.
- University of Washington Probability Seminar, May 2008.
- UCLA Combinatorics Seminar, May 2008.
- UCLA Probability Seminar, Apr 2008.
- University of Washington Combinatorics Seminar, Oct 2007.

- University of Washington Probability Seminar, Oct 2007.
- Tel Aviv University Combinatorics Seminar, May 2007.
- Weizmann Institute of Science GAFA & Probability Seminar, Apr 2007.
- Technion & Haifa Univeristy Combinatorics Seminar, Apr 2007.
- Hebrew University of Jerusalem Combinatorics Seminar, Dec 2006.
- Tel Aviv University GAFA Seminar, Nov 2006.
- Tel-Aviv University Combinatorics Seminar, Oct 2006.
- Weizmann Institute of Science GAFA & Probability Seminar, May 2006.
- Tel-Aviv University Combinatorics Seminar, May 2006.
- Princeton University Discrete Math. Seminar, March 2006.
- Tel-Aviv University Combinatorics Seminar, Nov 2005.
- Hebrew University Combinatorics Seminar, Nov 2005.
- IAS (Princeton) Discrete Mathematics Seminar, May 2005.
- Tel-Aviv University Combinatorics Seminar, May 2004.

### **EMPLOYMENT:**

8/00-6/04      Bandwiz Inc., Senior Software Engineer, Algorithms Team Leader.  
 8/95-8/00      IDF, Mathematical research and algorithms development.

### **PATENTS SUBMITTED**

- |                                          |                                                |
|------------------------------------------|------------------------------------------------|
| 1. Data streaming                        | (w. Y. Azar, D. Rajwan)                        |
| 2. Content Delivery System               | (w. T. Amiaz, H. Neerman, J. Weihs)            |
| 3. Interactive Scenario Exploration      | (w. Y. Azar, Y. Peres, G.R. Smith, D. Tan)     |
| 4. Cache and Index Refreshing Strategies | (w. Y. Azar, E. Horvitz, D. Shahaf)            |
| 5. Channel Selection Protocol            | (w. Y. Azar, O. Gurel-Gurevich, T. Moscibroda) |
| 6. Distributed Stochastic Clustering     | (w. P.-S. Loh, D. Malkhi, Y. Peres)            |