

# CURRICULUM VITAE

Omer Angel

## Contact Information

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## Personal Information

Marital status: married  
Citizenship: Israel; Canadian landed immigrant.

## Positions held

2006–present: Assistant professor at the Univ. of Toronto — joint appointment  
in Mathematics and Statistics.  
2004–2006: Post-doc at the Univ. of British Columbia.  
2003–2004: Post-doc at Univ. Paris-Sud.

## Grants

2006–7: Connaught grant (20K).  
2007–10: NSERC discovery grant (14K/year).

## Awards and Honours

2004–6: PIMS Post-doctoral fellowships.  
2003: Rothschild Post-doctoral fellowship.  
2003: Chateaubriand Post-doctoral fellowship.  
1993: Gold medal, International Math Olympiad; 1st place in both Israeli math  
olympiads.

## Education

- 1999–2003: Ph.D. in mathematics at the Weizmann Institute of Science  
Thesis advisors: Professor Itai Benjamini and Professor Oded Schramm  
Thesis subject: Uniform Infinite Planar Maps.
- 1994–1999: Israel army service: Mathematical algorithm research, development and implementation for the Intelligence Corps
- 1992–1994: Undergraduate studies in mathematics, Technion, Haifa. Graduated Summa Cum Laude from the Technion's Excellence Program.

## Teaching

- 2007: STA2111: Graduate Probability 2, U. of Toronto.
- 2007: STA348: Introduction to Mathematical Statistics 2, U. of Toronto.
- 2007: Introduction to Brownian motion and its application, PCMI Summer school (50+ undergraduates out of 300+ participants).
- 2006,7: STA261: Introduction to Mathematical Statistics 2, U. of Toronto.
- 2006: STA348: Introduction to Stochastic Processes, U. of Toronto.
- 2004,5: MATH300: Introduction to complex analysis, UBC.
- 2000,1: A similar program at the Weizmann Institute
- 1992–94: A course at the Technion for high school students: An introduction to higher mathematics and problem solving techniques

## Department service

- Department council, U. of Toronto, 2007-8.
- Computing committee, U. of Toronto, 2007-8.
- Open problem seminar, UBC, 2005-6.

## Conference organization

- New directions in random spatial processes, CRM, Montreal, 5/2009.
- Sorting networks focused research group - Co-organizer, Banff, 4/2006.

## Conference Talks

- PCMI Summer School in Probability, Park City, 7/2007.
- Conference on the occasion of Harry Kesten's Doctorate Honoris Causa, Paris, 6/2007.
- Enumerative topology and random discrete structures, Paris, 6/2007.
- Spatial Random Processes and Statistical Mechanics, Oberwolfach, 9/2006
- Stochastic Processes and their Applications, Paris, 7/2006.
- Conference in memory of Seymour Sherman, Indiana, 4/2006.

CMS Winter 2005 Meeting, Victoria, 12/2005.  
Summer School in Probability, Cornell, 7/2005.  
Summer School in Probability, UBC, 6/2005.  
Critical Scaling for Polymers and Percolation, Banff, 5/2005.  
Stochastic Analysis and Non-Classical Random Processes, Oberwolfach, 5/2005.  
Dynamics, Probability, and Conformal Invariance, Banff, 3/2005.  
Random Inhomogeneous Systems, IHP, 1/2005.  
Young European Probabilists workshop, Eurandom, 3/2004.  
Discrete Random Geometries, from solid state physics to quantum gravity,  
Les-Houches, 3/2004.

## Research visits

Oct 2007: Microsoft Research, U.S.  
Feb 2005: MSRI, U.S.  
July 2003: Microsoft Research, U.S.  
Jan.–Apr. 03: Institute Henri Poincaré, France.  
June 2002: Institut Mittag-Leffler, Sweden  
Dec. 2001: MIT, U.S.  
Dec. 2001: Microsoft Research, U.S.  
Nov. 2000–Mar. 01: Microsoft Research, U.S.

## Books

Advanced Introduction to Probability: Lecture notes based on two undergraduate courses (15 lectures each) at the PCMI summer school, with M. Biskup; in preparation (est. 160 pages).

## Accepted

- [1] O. Angel, J. Goodman, F. den Hollander, and G. Slade. Invasion percolation on regular trees. *Ann. Probab.*, 2007. 47 pages, to appear.
- [2] O. Angel, Y. Peres, and D. Wilson. Card shuffling and diophantine approximation. *Ann. Appl. Probab.*, 2007. 15 pages, to appear.
- [3] O. Angel, A. Holroyd, D. Romik, and B. Virag. Random sorting networks. *Adv. in Math.*, 215(2):839–868, 2007.
- [4] O. Angel, I. Benjamini, N. Berger, and Y. Peres. Transience of percolation clusters on wedges. *Electron. J. Probab.*, 11:no. 25, 655–669 (electronic), 2006.
- [5] O. Angel. The stationary measure of a 2-type totally asymmetric exclusion process. *J. Combin. Theory Ser. A*, 113(4):625–635, 2006.

- [6] O. Angel, A. E. Holroyd, and J. B. Martin. The jammed phase of the Biham-Middleton-Levine traffic model. *Electron. Comm. Probab.*, 10:167–178, 2005.
- [7] O. Angel. Random infinite permutations and the cyclic time random walk. In *Discrete random walks (Paris, 2003)*, Discrete Math. Theor. Comput. Sci. Proc., AC, pages 9–16 (electronic). Assoc. Discrete Math. Theor. Comput. Sci., Nancy, 2003.
- [8] O. Angel, I. Benjamini, E. Ofek, and U. Wieder. Routing complexity of faulty networks. In *PODC*, pages 209–217, 2005. *Rand. Struct. Algorithms*, to appear.
- [9] O. Angel and I. Benjamini. A phase transition for the metric distortion of percolation on the hypercube. *Combinatorica*, 2003. arXiv:math.PR/0306355. 11 pages, to appear.
- [10] O. Angel, I. Benjamini, and B. Virág. Random walks that avoid their past convex hull. *Electron. Comm. Probab.*, 8:6–16, 2003.
- [11] O. Angel. Growth and percolation on the uniform infinite planar triangulation. *Geom. Funct. Anal.*, 13(5):935–974, 2003.
- [12] O. Angel and O. Schramm. Uniform infinite planar triangulations. *Comm. Math. Phys.*, 241(2-3):191–213, 2003.
- [13] O. Angel, I. Benjamini, and Y. Peres. A large Wiener sausage from crumbs. *Electron. Comm. Probab.*, 5:67–71, 2000.

## Submitted

- [14] O. Angel. Scaling of percolation on infinite planar maps. *preprint*, 2005. arXiv:math/0501006.
- [15] O. Angel, J. Friedman, and S. Hoory. The non-backtracking spectrum of the universal cover of a graph. 30 pages, submitted.

## In preparation

- [16] O. Angel, A. Flaxman, D. Wilson, and R. Zecchina. Diameter constrained minimal spanning trees. ~10 pages, in preparation.
- [17] O. Angel, J. Goodman, and M. Merle. Scaling of invasion percolation of trees. ~15 pages, in preparation.
- [18] O. Angel, A. Holroyd, and D. Romik. The random transposition walk. ~14 pages, in preparation.

- [19] D. Aldous, O. Angel, and N. Berestycki. Sequential minimal spanning trees. ~13 pages, in preparation.
- [20] O. Angel, N. Berestycki, A. Hammond, and V. Limic. Global divergence of spatial coalescents. ~44 pages, in preparation.
- [21] O. Angel, G. Amir, G. Kozma, and I. Benjamini. 1 dimensional DLA. ~40 pages, in preparation.

Links to copies of my publications are available from my home page at <http://www.math.utoronto.ca/~angel>. Works in progress are available on request.