

# Russell David Lyons

## Education

Case Western Reserve University, Cleveland, OH

B.A. summa cum laude with departmental honors, May 1979, Mathematics

University of Michigan, Ann Arbor, MI

Ph.D., August 1983, Mathematics

Summer Myers Award for best thesis in mathematics

Specialization: Harmonic Analysis

Thesis: A Characterization of Measures Whose Fourier-Stieltjes Transforms Vanish at Infinity

Thesis Advisers: Hugh L. Montgomery, Allen L. Shields

## Employment

Indiana University, Bloomington, IN: James H. Rudy Professor of Mathematics, 2014–present.

Indiana University, Bloomington, IN: Adjunct Professor of Statistics, 2006–present.

Indiana University, Bloomington, IN: Professor of Mathematics, 1994–2014.

Georgia Institute of Technology, Atlanta, GA: Professor of Mathematics, 2000–2003.

Indiana University, Bloomington, IN: Associate Professor of Mathematics, 1990–94.

Stanford University, Stanford, CA: Assistant Professor of Mathematics, 1985–90.

Université de Paris-Sud, Orsay, France: Assistant Associé, half-time, 1984–85.

Sperry Research Center, Sudbury, MA: Researcher, summers 1976, 1979.

Hampshire College Summer Studies in Mathematics, Amherst, MA: Teaching staff, summers 1977, 1978.

## Visiting Research Positions

University of Calif., Berkeley: Visiting Miller Research Professor, Spring 2001.

Microsoft Research: Visiting Researcher, Jan.–Mar. 2000, May–June 2004, July 2006, Jan.–June 2007, July 2008–June 2009, Sep.–Dec. 2010, Aug.–Oct. 2011, July–Oct. 2012, May–July 2013, Jun.–Oct. 2014, Jun.–Aug. 2015, Jun.–Aug. 2016, Jun.–Aug. 2017, Jun.–Aug. 2018.

Weizmann Institute of Science, Rehovot, Israel: Rosi and Max Varon Visiting Professor, Fall 1997.

Institute for Advanced Studies, Hebrew University of Jerusalem, Israel: Winston Fellow, 1996–97.

Université de Lyon, France: Visiting Professor, May 1996.

University of Wisconsin, Madison, WI: Visiting Associate Professor, Winter 1994.

## Grants

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$60,000, 1993–96.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$74,000, 1998–2001.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$100,000, 2001–04.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$61,020, 2002–04.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$258,000, 2004–07.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$285,000, 2007–10.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$303,161, 2010–15.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$15,000, 2015.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$59,307, 2015–16.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$150,000, 2016–20.

NSF, Division of Mathematical Sciences, Statistics and Probability Program, \$332,636, 2020–2023.

## Fellowships and Honors

Fifth place in 1975 USA Mathematical Olympiad.  
Bronze medal, 1975 International Mathematical Olympiad in Bulgaria.  
Putnam Fellow (top 5) in 1977 and 1978 William Lowell Putnam Mathematical Competitions.  
Andrew Squire Scholarship (full tuition), Case Western Reserve University, 1975–79.  
ΦBK, 1978.  
NSF Graduate Fellowship, University of Michigan, 1979–82.  
University of Michigan Graduate Fellowship, University of Michigan, 1979–83.  
NATO Postdoctoral Fellowship in Science, Université de Paris-Sud, 1983–84.  
AMS Postdoctoral Fellowship, Université de Paris-Sud, 1984–85 and Stanford University, 1985–86.  
NSF Mathematical Sciences Postdoctoral Research Fellowship, Stanford University, 1986–89.  
Alfred P. Sloan Foundation Research Fellowship, Indiana University, 1990–93.  
Visiting Miller Research Professorship, University of Calif., Berkeley, Spring 2001.  
Indiana University Trustees’ Teaching Award, 2006.  
Institute of Mathematical Statistics Medallion, 2007.  
Fellow of the American Mathematical Society, 2013.  
Invited Speaker, International Congress of Mathematicians, Seoul, Korea, 2014.  
Hour Address, Joint Mathematics Meetings, San Antonio, Jan. 2015.  
Schramm Lecturer (joint award of the Bernoulli Society and the Institute of Mathematical Statistics), 2022.  
Simons Fellow in Mathematics, 2021–22.  
Indiana University Institute for Advanced Study Fellow, Fall 2023

## Editing

*Annals of Probability*, Associate Editor, 2003–2008  
*Annals of Applied Probability*, Associate Editor, 2003–2008  
*Journal of Topology and Analysis*, Associate Editor, 2007–  
*Tbilisi Mathematical Journal*, Managing Editor, 2009–2014  
*Journal of Fractal Geometry*, Associate Editor, 2013–  
*Annals of Mathematics*, Associate Editor, 2022–

## Scientific Boards and Committees

AMS Central Section Program Committee, 2009–2011  
AMS Committee on Committees, 2010–2011  
Fields Institute Scientific Advisory Panel, 2015–2019  
Fields Institute Scientific Nominating Committee, 2016–2019  
American Institute of Mathematics Scientific Research Board, 2016–

## Conferences Organized

August 1998: “Institute for Elementary Studies”, Ellison Bay, WI  
August 1999: Session for International Statistical Institute, Helsinki  
September 2000: “Mathematics and Computer Science: Trees, Probabilities, Combinatorics and Algorithms”, Versailles, France (scientific committee)  
March 2002: Special Session in AMS-MAA Joint Sectional Meeting, Atlanta  
April 2002: 6th Annual Southeast Probability Days, Atlanta  
March 2003: Special Session in AMS Sectional Meeting, Bloomington  
January 2004: Special Session in National Mathematics Meetings, Phoenix  
July 2004: Institute of Mathematical Statistics/Bernoulli World Congress, Barcelona (program committee)

August 2005: Session in Institute of Mathematical Statistics Satellite Meeting, Minneapolis  
 April 2006: Seymour Sherman Conference, Bloomington  
 August 2006: Fifth International Probability Symposium, Rio de Janeiro, Brazil (program committee and session organizer)  
 April 2008: Special Session in AMS Sectional Meeting, Bloomington  
 July 2009: 33rd Conference on Stochastic Processes and their Applications (SPA 2009), Berlin (scientific program committee)  
 August 2009: Oded Schramm Memorial Conference (scientific program committee)  
 Jan. 2015: Special Session in National Mathematics Meetings, San Antonio  
 May 2015: Seymour Sherman Conference, Bloomington  
 April 2017: Special Session in AMS Sectional Meeting, Bloomington

### Some Invited Presentations

<b>1997</b>	<b>Place</b>	<b>Type</b>
Jan.	Weizmann Institute, Israel	Special Lecture
Mar.	Technion, Haifa, Israel	Conference
Mar.	Hebrew U., Jerusalem, Israel	Math Colloquium
May	Bar Ilan U., Tel Aviv, Israel	Combinatorics Seminar
May	Bar Ilan U., Tel Aviv, Israel	IMU meeting, probability session
May	Hebrew U., Jerusalem, Israel	Conference
June	IAS, Princeton	Featured Speaker, conference
June	Sandbjerg, Denmark	Keynote Speaker (2 talks), conference
June	Cortona, Italy	Main Speaker, conference
Oct.	Gothenburg, Sweden	Probability Seminar
Oct.	Gothenburg, Sweden	Opening Speaker, conference
<b>1998</b>	<b>Place</b>	<b>Type</b>
Jan.	IAS, Princeton	Statistical Physics Seminar
May	MSRI	Probability Seminar
May	U. Washington	Math Colloquium
May	Georgia Tech	Math Colloquium
June	Knoxville	Conference
Aug.	Ellison Bay, WI	Workshop
Sep.	AMS Regional Meeting, Chicago	Special Session
Oct.	IUPUI	Noncommutative Geometry Seminar (2 talks)
Oct.	UIUC	Stochastic and Nonlinear Analysis Seminar
<b>1999</b>	<b>Place</b>	<b>Type</b>
Mar.	AMS Regional Meeting, Gainesville	Special Session
Mar.	AMS Regional Meeting, Urbana	Special Session
Apr.	Purdue	Probability Seminar
May	U. Minnesota	Probability Seminar
May	Colorado Springs	Main Speaker, Workshop
Aug.	Jyväskylä, Finland	International Summer School (20 lectures)
Aug.	Chalmers U., Gothenburg, Sweden	Probability Seminar
Dec.	Georgia Tech	Math Colloquium
<b>2000</b>	<b>Place</b>	<b>Type</b>
Jan.	Microsoft Research	Seminar
Feb.	U. Washington	Rainwater Seminar
Mar.	Microsoft Research	Seminar
April	Georgia Tech	Seminar

April Michigan St. U.  
Sep. AMS Regional Meeting, Toronto

Statistics Colloquium  
Special Session

**2001 Place**

Jan. UC, Berkeley  
Feb. Stanford  
Feb. UC, Berkeley  
Feb. UC, Berkeley  
Mar. UC, Berkeley  
Apr. UC, Berkeley  
May MSRI  
May MIT  
May UCSD  
May UCLA  
June ESI, Vienna, Austria  
Aug. Joint Statistical Meetings, Atlanta  
Aug. KTH, Stockholm, Sweden  
Oct. UC, Berkeley  
Oct. U. Michigan  
Dec. EURANDOM, Netherlands

**Type**

Miller Institute Lunch  
Probability-Statistics Seminar  
CS Theory Lunch  
Statistics-CS Seminar  
Math Colloquium  
Combinatorics Seminar  
Workshop  
Applied Math Colloquium  
Probability Seminar  
Math Colloquium  
Workshop  
Special Session  
Conference  
Loève Prize Ceremony  
Math Colloquium  
Conference

**2002 Place**

Mar. Memphis  
Mar. AMS-MAA Sectional Meeting, Atlanta  
Aug. Banff, Canada  
Sep. UIUC  
Nov. Purdue U.

**Type**

6th Annual Erdős Lecture Series Conference  
Special Session  
4th Int'l Sympos. Probab. Applic.  
Stochastic and Nonlinear Analysis Seminar  
Statistics Department Probability Seminar

*Declined 6 European invitations*

**2003 Place**

Jan. AMS-MAA National Meeting, Baltimore  
Mar. Microsoft Research  
Mar. University of Washington  
Apr. Princeton University  
May University of Zurich, Switzerland  
June ENS Lyon, France  
July BIRS, Banff, Canada

**Type**

Special Session  
Seminar  
Main Speaker (conference)  
Colloquium  
Seminar (2 talks)  
Seminar  
Focussed Research Group participant

*Declined 5 invitations outside the USA*

**2004 Place**

Jan. AMS-MAA National Meeting, Phoenix  
Mar. Georgia Tech  
May Microsoft Research  
June Gothenburg, Sweden  
Sep. Ann Arbor

**Type**

Special Session  
Inter-departmental colloquium  
Seminar  
Conference  
Birthday Conference

*Declined 3 invitations inside the USA and 4 outside*

**2005 Place**

March EURANDOM, Netherlands  
April Georgia Tech  
May Banff  
May Ohio State  
July Cornell  
Aug. Minneapolis

**Type**

Minicourse (4 hours)  
Seminar  
Conference  
Seminar  
Summer School (9 hours)  
Main Speaker (conference)

*Declined 5 invitations inside the USA and 3 outside*

<b>2006</b>	<b>Place</b>	<b>Type</b>
May	Fields Institute, Toronto	Workshop
June	UIUC	Birthday Conference
July	Hampshire College	Conference
<i>Declined 1 invitation inside the USA and 6 outside</i>		
<b>2007</b>	<b>Place</b>	<b>Type</b>
Feb.	U. Washington	Seminar
Feb.	Microsoft Research	Seminar
April	U. Washington	Seminar
May	U. British Columbia	Seminar (2 talks)
May	U. Calif., Irvine	Seminar
May	UCLA	Seminar
May	UCLA	Colloquium
July	Durham, UK	Conference
Aug.	UIUC	Medallion Lecture (conference)
Oct.	AIM	Conference
<i>Declined 5 invitations outside the USA</i>		
<b>2008</b>	<b>Place</b>	<b>Type</b>
May	AIM	Conference
Sep.	Microsoft Research	Seminar
Oct.	AMS Sectional Meeting, Vancouver	Special Session
Oct.	UCLA	Seminar
Oct.	UCLA	Colloquium
Oct.	U. Washington	Seminar
Nov.	Courant Research Centre, Göttingen	Distinguished Lecture Series (3 talks)
Nov.	Hausdorff Center, Bonn	Colloquium
Nov.	ENS Lyon	Seminar
Nov.	ENS Lyon	Working group
<i>Declined 4 invitations inside the USA and 5 outside</i>		
<b>2009</b>	<b>Place</b>	<b>Type</b>
Apr.	Banff	Focussed research group
Apr.	Vanderbilt U.	Seminar
May	UNC-Chapel Hill	Conference (keynote speaker)
May	U. Washington	Seminar
June	Microsoft Research	Seminar
Aug.	Microsoft Research	Conference
<i>Declined 3 invitations inside the USA and 4 outside</i>		
<b>2010</b>	<b>Place</b>	<b>Type</b>
Feb.	Purdue U.	Seminar
Mar.	Princeton U.	Colloquium
May	U. Tenn.	Conference
Oct.	U. British Columbia	Seminar
Oct.	U. Washington	Seminar
Nov.	U. Washington	Seminar
Nov.	U. Calif., Berkeley	Seminar
Nov.	U. Calif., Berkeley	Guest lecture
Dec.	Microsoft Research	Seminar
<i>Declined 9 invitations outside the USA</i>		

<b>2011</b>	<b>Place</b>	<b>Type</b>
Jan.	U. Calif., Berkeley	Seminar
June	BIRS, Banff, Canada	Conference
Sep.	AIM, Palo Alto	Workshop
Sep	MSRI, Berkeley	Workshop
Sep.	Stanford U.	Seminar
Oct.	Northwestern U.	Conference main speaker (2 talks)
Oct.	U. Washington	Seminar
Nov.	IUPUI, Indianapolis	Conference lunch speaker
<i>Declined 2 invitations outside the USA and 2 inside</i>		
<b>2012</b>	<b>Place</b>	<b>Type</b>
Mar.	Vanderbilt U.	Conference (3 talks)
Mar.	Vanderbilt U. Medical School	Seminar
May	Brown U., Public Health	Seminar
May	Brown U.	Seminar
May	Biopharmaceutical Statistics Workshop, Muncie, IN	Banquet Speech
June	IAS, Princeton	Workshop
Aug.	MAA MathFest, Madison	Special Session
Nov.	Purdue U.	Colloquium
Dec.	Cornell	Seminar
<i>Declined 4 invitations outside the USA and 5 inside</i>		
<b>2013</b>	<b>Place</b>	<b>Type</b>
Aug.	Rényi Institute, Budapest	Seminars (3 talks)
Aug.	Oberwolfach	Conference
Oct.	UIUC	Seminar
Oct.	UIUC	Colloquium
Oct.	PSU	Seminar
Oct.	PSU	Colloquium
<i>Declined 2 invitations outside the USA and 1 inside</i>		
<b>2014</b>	<b>Place</b>	<b>Type</b>
Feb.	SBU	Colloquium
Feb.	SBU	Math Club
Feb.	CUNY	Quantitative Psych. Speaker Series
Apr.	IUPUI	High School Math Contest Keynote Speaker
Aug.	Seoul Natl. U.	Conference
Aug.	ICM, Seoul, Korea	Invited Talk
Oct.	U. Wash.	Seminar
Nov.	Vanderbilt U.	Colloquium
Nov.	MIT	Seminar
Nov.	U. Texas	Colloquium
Nov.	U. Texas	Seminar
<i>Declined 1 invitation outside the USA and 4 inside</i>		
<b>2015</b>	<b>Place</b>	<b>Type</b>
Jan.	San Antonio	Hour Address, Joint Math Meetings
May	UAB	Conference
June	BIRS, Banff, Canada	Conference
Sep.	UVA	Colloquium
Oct.	EPFL, Switzerland	Conference
Oct.	IAS, Jerusalem	Conference
Oct.	U. Cambridge	Seminar

Nov.	UCLA/Caltech	Seminar
Nov.	TAMU	Conference
<i>Declined 5 invitations outside the USA and 3 inside</i>		
<b>2016</b>	<b>Place</b>	<b>Type</b>
Aug.	BIRS, Banff, Canada	Focussed Research Group
Oct.	AMS Sectional Meeting, Denver	Special Session
Dec.	U. Wash.	Seminar
<i>Declined 8 invitations outside the USA and 1 inside</i>		
<b>2017</b>	<b>Place</b>	<b>Type</b>
May	UIUC	Conference
Aug.	Rényi Institute, Budapest	Summer School (3 talks)
<i>Declined 1 invitation outside the USA and 3 inside</i>		
<b>2018</b>	<b>Place</b>	<b>Type</b>
Feb.	Princeton	Seminar
Mar.	Columbia-Courant	Joint Seminar
Apr.	Notre Dame	Colloquium
Aug.	IUPUI	Colloquium
<i>Declined 7 invitations outside the USA and 4 inside</i>		
<b>2019</b>	<b>Place</b>	<b>Type</b>
May	CMU	Colloquium
Oct.	IUPUI	Seminar
<i>Declined 4 invitations outside the USA</i>		
<b>2020</b>	<b>Place</b>	<b>Type</b>
Sep.	MIT	Seminar
<i>Declined 2 invitations outside the USA and 1 inside</i>		
<b>2021</b>	<b>Place</b>	<b>Type</b>
Jan.	Paris-Saclay	Seminar
Apr.	UConn	Seminar
Sep.	Chalmers University	Seminar
<i>Declined 2 invitations outside the USA</i>		
<b>2022</b>	<b>Place</b>	<b>Type</b>
Feb.	One World Probability Seminar	Online Seminar
Apr.	Special Session, JMM (Virtual)	Invited Lecture
June	IMS Annual Meeting, London, UK	Schramm Lecture
<i>Declined 1 invitation outside the USA</i>		
<b>2023</b>	<b>Place</b>	<b>Type</b>
Feb.	UT Austin	Seminar
May	U. Chicago	Billingsley Lecture
May	U. Chicago	Seminar
May	UT Austin	Summer School, 2 lectures
July	Cambridge	Conference
<i>Declined 1 invitation outside the USA and 1 inside</i>		

## Publications

1. Radiometric Feature Extraction and Correlation, September 1976, SCRC-RR-76-54 (Company Proprietary Research Report), Sperry Research Center, Sudbury, MA.

2. (with H. Mieras and C.L. Bennett) Space-Time Integral Equation Approach to Dielectric Targets, Oct. 1979, SRC-CR-79-81 (for public release), Sperry Research Center, Sudbury, MA.
3. (with H. Mieras and C.L. Bennett) Time domain integral equation approach to EM scattering by dielectric solids, *Antennas and Propagation Society International Symposium* **18** (1980), 416–418, IEEE.
4. Measure-theoretic quantifiers and Haar measure, *Proc. Amer. Math. Soc.* **86** (1982), 67–70; Erratum, *ibid.* **91** (1984), 329–330.
5. A lower bound on the Cesàro operator, *Proc. Amer. Math. Soc.* **86** (1982), 694.
6. Characterizations of measures whose Fourier-Stieltjes transforms vanish at infinity, *Bull. Amer. Math. Soc.* (N.S.) **10** (1984), 93–96.
7. La mesure des ensembles non-normaux, *Séminaire de Théorie des Nombres de Bordeaux*, 1983–84, pp. 13–01 to 13–08 (Université de Bordeaux, France).
8. Fourier-Stieltjes coefficients and asymptotic distribution modulo 1, *Ann. of Math.* **122** (1985), 155–170.
9. La taille de certaines classes d'ensembles minces, *Séminaire d'Analyse Harmonique*, 1984–85, pp. IV–1 to IV–8 (Université de Paris-Sud, France).
10. The measure of non-normal sets, *Invent. Math.* **83** (1986), 605–616.
11. Wiener's theorem, the Radon-Nikodym theorem, and  $M_0(\mathbf{T})$ , *Arkiv för Mat.* **24** (1986), 277–282; Errata, *ibid.* **26** (1988), 165–166.
12. The size of some classes of thin sets, *Studia Math.* **86** (1987), 59–78.
13. On the structure of sets of uniqueness, *Proc. Amer. Math. Soc.* **101** (1987), 644–646.
14. On measures simultaneously 2- and 3-invariant, *Israel J. Math.* **61** (1988), 219–224.
15. Singular measures with spectral gaps, *Proc. Amer. Math. Soc.* **104** (1988), 86–88.
16. A new type of sets of uniqueness, *Duke Math. J.* **57** (1988), 431–458.
17. (with Alexander S. Kechris) Ordinal rankings on measures annihilating thin sets, *Trans. Amer. Math. Soc.* **310** (1988), 747–758.
18. Mixing and asymptotic distribution modulo 1, *Ergodic Theory Dynamical Systems* **8** (1988), 597–619.
19. Strong laws of large numbers for weakly correlated random variables, *Mich. Math. J.* **35** (1988), 353–359.
20. Topologies on measure spaces and the Radon-Nikodym theorem, *Studia Math.* **91** (1988), 125–129.
21. The Ising model and percolation on trees and tree-like graphs, *Commun. Math. Phys.* **125** (1989), 337–353.
22. Random walks and percolation on trees, *Ann. Probab.* **18** (1990), 931–958.
23. The local structure of some measure-algebra homomorphisms, *Pacific J. Math.* **148** (1991), 89–106.
24. (with Scot Adams) Amenability, Kazhdan's property and percolation for trees, groups and equivalence relations, *Israel J. Math.* **75** (1991), 341–370.
25. (with Robin Pemantle) Random walk in a random environment and first-passage percolation on trees, *Ann. Probab.* **20** (1992), 125–136. Correction, *Ann. Probab.* **31** (2003), 528–529.
26. Random walks, capacity, and percolation on trees, *Ann. Probab.* **20** (1992), 2043–2088.
27. (with Kevin Zumbrun) Homogeneous partial derivatives of radial functions, *Proc. Amer. Math. Soc.* **121** (1994), 315–316.
28. Equivalence of boundary measures on covering trees of finite graphs, *Ergodic Theory Dynamical Systems* **14** (1994), 575–597.
29. Sur l'histoire de  $M_0(\mathbf{T})$ , appendix to J.-P. Kahane and R. Salem, *Ensembles parfaits et séries trigonométriques*, 2nd ed., Hermann, Paris, 1994.
30. (with Robin Pemantle and Yuval Peres) Ergodic theory on Galton-Watson trees: speed of random walk and dimension of harmonic measure, *Ergodic Theory Dynamical Systems* **15** (1995), 593–619.
31. Random walks and the growth of groups, *C. R. Acad. Sci. Paris* **320** (1995), 1361–1366.
32. Seventy years of Rajchman measures, *J. Fourier Anal. Appl.*, Kahane Special Issue (1995), 363–377.
33. (with Robin Pemantle and Yuval Peres) Conceptual proofs of  $L \log L$  criteria for mean behavior of branching processes, *Ann. Probab.* **23** (1995), 1125–1138.



34. How fast and where does a random walker move in a random tree?, in *Random Discrete Structures*, D. Aldous and R. Pemantle (editors), Springer, New York, 1996, pp. 185–198.
35. Diffusions and random shadows on negatively-curved manifolds, *J. Functional Anal.* **138** (1996), 426–448.
36. (with Robin Pemantle and Yuval Peres) Biased random walks on Galton-Watson trees, *Probab. Theory Related Fields* **106** (1996), 249–264.
37. Probabilistic aspects of infinite trees and some applications, in *Trees*, B. Chauvin, S. Cohen, A. Rouault (editors), Birkhäuser, Basel, 1996, pp. 81–94.
38. (with Robin Pemantle and Yuval Peres) Random walks on the lamplighter group, *Ann. Probab.* **24** (1996), 1993–2006.
39. (with Thomas G. Kurtz, Robin Pemantle, and Yuval Peres) A conceptual proof of the Kesten-Stigum theorem for multi-type branching processes, in *Classical and Modern Branching Processes*, K. Athreya and P. Jagers (editors), Springer, New York, 1997, pp. 181–186.
40. A simple path to Biggins’ martingale convergence for branching random walk, in *Classical and Modern Branching Processes*, K. Athreya and P. Jagers (editors), Springer, New York, 1997, pp. 217–222.
41. (with Robin Pemantle and Yuval Peres) Unsolved problems concerning random walks on trees, in *Classical and Modern Branching Processes*, K. Athreya and P. Jagers (editors), Springer, New York, 1997, pp. 223–238.
42. Biased random walks and harmonic functions on the lamplighter group, in *Harmonic Functions on Trees and Buildings: Workshop on Harmonic Functions on Graphs*, A. Korányi (ed.), American Mathematical Society, Providence, RI, 1997, pp. 137–139.
43. (with Kevin Zumbrun) Normality of tree-growing search strategies, *Ann. Applied Probab.* **8** (1998), 112–130.
44. A bird’s-eye view of uniform spanning trees and forests, in *Microsurveys in Discrete Probability*, D. Aldous and J. Propp (eds.), Amer. Math. Soc., Providence, RI, 1998, pp. 135–162.
45. (with Michael Larsen) Coalescing particles on an interval, *J. Theor. Probab.* **12** (1999), 201–205.
46. (with Robin Pemantle and Yuval Peres) Resistance bounds for first-passage percolation and maximum flow, *J. Combin. Theory Ser. A* **86** (1999), 158–168.
47. (with Itai Benjamini, Yuval Peres, and Oded Schramm) Group-invariant percolation on graphs, *Geom. Funct. Anal.* **9** (1999), 29–66.
48. (with Oded Schramm) Stationary measures for random walks in a random environment with random scenery, *New York J. Math.* **5** (1999), 107–113.
49. (with Alano Ancona and Yuval Peres) Crossing estimates and convergence of Dirichlet functions along random walk paths, *Ann. Probab.* **27** (1999), 970–989.
50. (with Itai Benjamini and Oded Schramm) Percolation perturbations in potential theory and random walks, in *Random Walks and Discrete Potential Theory (Cortona, 1997)*, *Sympos. Math.*, M. Picardello and W. Woess (eds.), Cambridge U. Press, Cambridge, 1999, pp. 56–84.
51. (with Itai Benjamini, Yuval Peres, and Oded Schramm) Critical percolation on any nonamenable group has no infinite clusters, *Ann. Probab.* **27** (1999), 1347–1356.
52. (with Oded Schramm) Indistinguishability of percolation clusters, *Ann. Probab.* **27** (1999), 1809–1836.
53. Phase transitions on nonamenable graphs, *J. Math. Phys.* **41** (2000), 1099–1126. (Invited review.)
54. Singularity of some random continued fractions, *J. Theor. Probab.* **13** (2000), 535–545.
55. (with Itai Benjamini, Yuval Peres, and Oded Schramm) Uniform spanning forests, *Ann. Probab.* **29** (2001), 1–65. (Special Invited Paper)
56. (with Olle Häggström and Johan Jonasson) Explicit isoperimetric constants and phase transitions in the random-cluster and Potts models, *Ann. Probab.* **30** (2002), 443–473.
57. (with Peter Paule and Axel Riese) A computer proof of a series evaluation in terms of harmonic numbers, *Appl. Algebra Engrg. Comm. Comput.* **13**, no. 4 (2002), 327–333.
58. (with Olle Häggström and Johan Jonasson) Coupling and Bernoullicity in the random-cluster and Potts models, *Bernoulli* **8** (2002), no. 3, 275–294.
59. (with Deborah Heicklen) Change intolerance in spanning forests, *J. Theor. Probab.* **16** (2003), 47–58.

60. (with Yuval Peres and Oded Schramm) Markov chain intersections and the loop-erased walk, *Ann. Inst. H. Poincaré Probab. Statist.* **39**, no. 5, (2003), 779–791.
61. Szegő limit theorems, *Geom. Funct. Anal.* **13** (2003), 574–590.
62. (with Jeffrey E. Steif) Stationary determinantal processes: phase multiplicity, Bernoullicity, entropy, and domination, *Duke Math. J.* **120**, no. 3 (2003), 515–575.
63. Determinantal probability measures, *Publ. Math. Inst. Hautes Études Sci.* **98** (2003), 167–212.
64. (with Jessica L. Felker) High-precision entropy values for spanning trees in lattices, *J. Phys. A* **36** (2003), 8361–8365.
65. Asymptotic enumeration of spanning trees, *Combin. Probab. Comput.* **14** (2005), 491–522.
66. (with Yuval Peres and Oded Schramm) Minimal spanning forests, *Ann. Probab.* **34**, no. 5 (2006), 1665–1692.
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