

PERSI DIACONIS

Mary V. Sunseri Professor

Professor of Statistics

Professor of Mathematics

(650) 725-1965

diaconis@math.stanford.edu

<http://statistics.stanford.edu/persi-diaconis>

Sequoia Hall, 390 Jane Stanford Way, Room 131

Sloan Mathematics Center, 450 Jane Stanford Way, Room 106

Stanford, California 94305

Professional Education

College of the City of New York	B.S. Mathematics	1971
Harvard University	M.A. Mathematical Statistics	1972
Harvard University	Ph.D. Mathematical Statistics	1974

Administrative Appointments

2006–2007	<i>Visiting Professor, Université de Nice-Sophia Antipolis</i>
1999–2000	<i>Fellow, Center for Advanced Study in the Behavioral Sciences</i>
1998–	<i>Professor of Mathematics, Stanford University</i>
1998–	<i>Mary Sunseri Professor of Statistics, Stanford University</i>
1996–1998	<i>David Duncan Professor, Department of Mathematics and ORIE, Cornell University</i>
1987–1997	<i>George Vasmer Leverett Professor of Mathematics, Harvard University</i>
1985–1986	<i>Visiting Professor, Department of Mathematics, Massachusetts Institute of Technology</i>
1985–1986	<i>Visiting Professor, Department of Mathematics, Harvard University</i>
1981–1987	<i>Professor of Statistics, Stanford University</i>
1981–1982	<i>Visiting Professor, Department of Statistics, Harvard University</i>
1979–1980	<i>Associate Professor of Statistics, Stanford University</i>
1978–1979	<i>Research Staff Member, AT&T Bell Laboratories</i>
1974–1979	<i>Assistant Professor of Statistics, Stanford University</i>

Professional Activities

1972–1980	Statistical Consultant, <i>Scientific American</i>
1974–	Statistical Consultant, Bell Telephone Laboratories
1974	Statistical Consultant, Jet Propulsion Laboratories

1977– Statistical Consultant, SLAC National Accelerator Laboratory
(formerly Stanford Linear Accelerator Center)
1993–1999 Statistical Consultant, Teledyne, Cryptography Division
1997–1998 President, Institute of Mathematical Statistics

Editorial Boards: *Advances in Applied Mathematics; SIAM Journal on Discrete Mathematics; Journal of Theoretical Probability; Statistics and Computation; Mathematics and the Internet; Bulletin of the American Math Society; Annals of Probability*

Member: National Academy of Sciences; American Philosophical Society

Fellow: American Academy of Arts and Sciences; American Statistical Association;
Institute of Mathematical Statistics

Honors and Awards

1981 *Rollo Davidson Prize, Cambridge University*
1982–1987 *MacArthur Fellowship*
1987 *Wald Lecturer, Institute of Mathematical Statistics*
1989 *Hedrick Lecturer, Mathematical Association of America*
1997 *Gibbs Lecturer, American Mathematical Society*
1998 *Plenary Speaker, International Congress of Mathematicians, Berlin*
2000 *Von Neumann Lecturer, Society of Industrial and Applied Mathematics*
2003 *Honorary Degree, University of Chicago*
2003 *Honorary Degree, Université Paul Sabatier, Toulouse*
2005 *Honorary Degree, Uppsala University, Sweden*
2006 *Van Wijngaarden Award, Centrum voor Wiskund en Informatica, Amsterdam*
2006 *Chaire d'excellence de l'ANR 2006, Université de Nice–Sophia Antipolis, Centre national de la recherche scientifique (CNRS)*
2007 *Honorary Degree, Queen Mary College, University of London*
2009 *Honorary Degree, Athens University of Economics and Business*
2012 *Conant Prize, American Mathematical Society*
2012 *Euler Prize, American Mathematical Society*
2013 *Honorary Degree, University of St. Andrews, Scotland*
2018 *Inaugural Alexanderson Award Lecture, American Institute of Mathematics, Santa Clara University*

Publications

1. **Gambler's ruin estimates on finite inner uniform domains** ANN APPL PROBAB Diaconis, P., Houston-Edwards, K., Saloff-Coste, L. 2021; 31(2):865-895. DOI: 10.1214/20-AAP1607
2. **Permanental generating functions and sequential importance sampling** ADV APPL MATH (Special Issue: Dedicated to Joseph Kung) Chung, F., Diaconis, P., Graham, R.L. 2021; 126: 101916. Online 29 May 2019. DOI: 10.1016/j.aam.2019.05.004
3. **Analytic-geometric methods for finite Markov chains with applications to quasi-stationarity** ALEA-LAT AMER J PROBAB MATH STAT Diaconis, P., Houston-Edwards, K., Saloff-Coste, L. 2020; 17(2): 901-991. DOI: 10.30757/ALEA.v17-35
4. **Speeding up Markov chains with deterministic jumps** PROBAB THEORY RELAT FIELDS Chatterjee, S., Diaconis, P. 2020; online 22 Sep (in press). DOI: 10.1007/s00440-020-01006-4
5. **Tensor product Markov chains** J ALGEBRA Benkart, G., Diaconis, P., Liebeck, M.W., Tiep, P.H. 2020; 561:17-83. DOI: 10.1016/j.jalgebra.2019.10.038
6. **Reproducing kernel orthogonal polynomials on the multinomial distribution** J. APPROX. THEOR. Diaconis, P., Griffiths, R.C. 2019; 242:1-30. DOI: 10.1016/j.jat.2019.01.007
7. **The magic of Charles Sanders Peirce** In *The Mathematics of Various Entertaining Subjects Volume 3* (J. Beineke, J. Rosenhouse eds), 161-203. Diaconis, P., Graham, R. Princeton University Press, 2019
8. **Probabilizing Fibonacci Numbers** In *Connections in Discrete Mathematics: A Celebration of the Work of Ron Graham* (Butler, S., Cooper, J., Hurlbert, G., eds.), pp. 1-12. Diaconis, P. Cambridge University Press, 2018. DOI: 10.1017/9781316650295.002
9. **The sample size required in importance sampling** ANN. APPL. PROBAB. Chatterjee, S., Diaconis, P. 2018; 28(2): 1099-1135. DOI: 10.1214/17-AAP1326
10. **Bayesian goodness of fit tests: A conversation for David Mumford** ANN. AMER. MATH. SCI APPL. Diaconis, P., Wang, G. 2018; 3(1):297-308. DOI: 10.4310/amsa.2018.v3.n1.a9
11. **A central limit theorem for a new statistic on permutations** INDIAN J PURE APPL MATH Chatterjee, S., Diaconis, P. 2017; 48(4): 561-573. DOI: 10.1007/s13226-017-0246-3
12. **Ten Great Ideas about Chance** Diaconis, P., Skyrms, B. Princeton University Press 2017. ISBN 978-0-691-17416-7
13. **Probabilizing parking functions** ADVANCES IN APPLIED MATHEMATICS Diaconis, P., Hicks, A. 2017; 89, 125-155. DOI: 10.1016/j.aam.2017.05.004
14. **Useful bounds on the extreme eigenvalues and vectors of matrices for Harper's operators** Bump, D., Diaconis, P, Hicks, A., Miclo, L., Widom, H. 2017; in *Large Truncated Toeplitz Matrices, Toeplitz Operators, and Related Topics: The Albrecht Böttcher Anniversary Volume* Springer International Publishing Vol. 259, 235-265. DOI: 10.1007/978-3-319-49182-0_13
15. **An exercise (?) in Fourier analysis on the Heisenberg group** ANNALES DE LA FACULTÉ DES SCIENCES DE TOULOUSE SÉR. 6 Bump, D., Diaconis, P, Hicks, A., Miclo, L., Widom, H. 2017; 26 (2): 263-288. DOI: 10.5802/afst.1533
16. **Hurwitz and the origins of random matrix theory in mathematics** RANDOM MATRICES: THEORY APPL. Diaconis, P., Forrester, P.J. 2017; 6(1): 1730001 [26 pages]. DOI: 10.1142/S2010326317300017
17. **Universal limit theorems in graph coloring problems with connections to extremal combinatorics** ANNALS OF APPLIED PROBABILITY Bhattacharya, B. B., Diaconis, P., Mukherjee, S. 2017; 27 (1): 337-394
18. **Five stories for Richard** In *The Mathematical Legacy of Richard P. Stanley* (P. Hersh, T. Lam, P. Pylyavskyy, V. Reiner, eds), 131-139. Diaconis, P. Amer. Math. Soc. 2016

19. **The mathematics of the flip and horseshoe shuffles** AMERICAN MATHEMATICAL MONTHLY Butler, S., Diaconis, P., Graham, R. 2016; 123 (6): 542-556
20. **Estimates on the amplitude of the first Dirichlet eigenvector in discrete frameworks** SCIENCE CHINA-MATHEMATICS Diaconis, P., Miclo, L. 2016; 59 (2): 205-226
21. **A spectral analysis approach for experimental designs** In *Excursions in Harmonic Analysis. Vol. 4:* 367–395, Bailey, R.A., Diaconis, P., Rockmore, D.N., Rowley, C. Birkhäuser/Springer, 2015.
22. **Central limit theorems for some set partition statistics** ADVANCES IN APPLIED MATHEMATICS Chern, B., Diaconis, P., Kane, D. M., Rhoades, R. C. 2015; 70: 92-105
23. **de Finetti Priors using Markov chain Monte Carlo computations** STATISTICS AND COMPUTING Bacallado, S., Diaconis, P., Holmes, S. 2015; 25 (4): 797-808
24. **An introduction to multivariate Krawtchouk polynomials and their applications** JOURNAL OF STATISTICAL PLANNING AND INFERENCE Diaconis, P., Griffiths, R. 2014; 154: 39-53
25. **Carries, group theory, and additive combinatorics** AMERICAN MATHEMATICAL MONTHLY Diaconis, P., Shao, X., Soundararajan, K. 2014; 121 (8): 674-688
26. **Unseparated pairs and fixed points in random permutations** ADVANCES IN APPLIED MATHEMATICS Diaconis, P., Evans, S. N., Graham, R. 2014; 61: 102-124
27. **Combinatorics of balanced carries** ADVANCES IN APPLIED MATHEMATICS Diaconis, P., Fulman, J. 2014; 59: 8-25
28. **Convolution powers of complex functions on \mathbb{Z}** MATHEMATISCHE NACHRICHTEN Diaconis, P., Saloff-Coste, L. 2014; 287 (10): 1106-1130
29. **Hopf algebras and Markov chains: two examples and a theory** JOURNAL OF ALGEBRAIC COMBINATORICS Diaconis, P., Pang, C. Y., Ram, A. 2014; 39 (3): 527-585
30. **Fluctuations of the Bose-Einstein condensate** JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL Chatterjee, S., Diaconis, P. 2014; 47 (8)
31. **An introduction to multivariate Krawtchouk polynomials and their applications** JOURNAL OF STATISTICAL PLANNING AND INFERENCE Diaconis, P., Griffiths, R. 2014
32. **Estimating and understanding exponential random graph models** ANNALS OF STATISTICS Chatterjee, S., Diaconis, P. 2013; 41 (5): 2428-2461
33. **Some things we've learned (about Markov chain Monte Carlo)** BERNOULLI Diaconis, P. 2013; 19 (4): 1294-1305
34. **Analysis of casino shelf shuffling machines** ANNALS OF APPLIED PROBABILITY Diaconis, P., Fulman, J., Holmes, S. 2013; 23 (4): 1692-1720
35. **Random doubly stochastic tridiagonal matrices** RANDOM STRUCTURES & ALGORITHMS Diaconis, P., Wood, P. M. 2013; 42 (4): 403-437
36. **Note on a partition limit theorem for rank and crank** BULLETIN OF THE LONDON MATHEMATICAL SOCIETY Diaconis, P., Janson, S., Rhoades, R. C. 2013; 45: 551-553
37. **Interval graph limits** ANNALS OF COMBINATORICS Diaconis, P., Holmes, S., Janson, S. 2013; 17 (1): 27-52
38. **Sampling from a manifold** *Advances in Modern Statistical Theory and Applications: A Festschrift in honor of Morris L. Eaton* Diaconis, P., Holmes, S., Shahashahani, M. edited by Jones, G., Shen, X. Institute of Mathematical Statistics. 2013: 102–125
39. **Closed expressions for averages of set partition statistics** INTERNATIONAL JOURNAL OF MODERN MATH Chern, B., Diaconis, P., Chatterjee, S. 2013
40. **Carries, group theory and additive combinatorics** AMERICAN MATHEMATICAL MONTHLY Diaconis, P., Shao, X., Soundararajan, K. 2013
41. **Fluctuations of the Bose-Einstein condensate** JOURNAL OF PHYSICS A: MATHEMATICAL AND THEORETICAL Chatterjee, S., Diaconis, P. 2013; 47 (8)

42. **Foulkes characters, Eulerian idempotents, and an amazing matrix** JOURNAL OF ALGEBRAIC COMBINATORICS Diaconis, P., Fulman, J. 2012; 36 (3): 425-440
43. **Gibbs/Metropolis algorithms on a convex polytope** MATHEMATISCHE ZEITSCHRIFT Diaconis, P., Lebeau, G., Michel, L. 2012; 272 (1-2): 109-129
44. **A probabilistic interpretation of the Macdonald polynomials** ANNALS OF PROBABILITY Diaconis, P., Ram, A. 2012; 40 (5): 1861-1896
45. **On Dirichlet eigenvectors for neutral two-dimensional Markov chains** ELECTRONIC JOURNAL OF PROBABILITY Champagnat, N., Diaconis, P., Miclo, L. 2012; 17: 1-41
46. **Exchangeable pairs of Bernoulli random variables, Krawtchouk polynomials, and Ehrenfest urns** AUSTRALIAN & NEW ZEALAND JOURNAL OF STATISTICS Diaconis, P., Griffiths, R. 2012; 54 (1): 81-101
47. **Supercharacters, symmetric functions in noncommuting variables, and related Hopf algebras** ADVANCES IN MATHEMATICS Aguiar, M., Andre, C., Benedetti, C., Bergeron, N., Chen, Z., Diaconis, P., Hendrickson, A., Hsiao, S., Isaacs, I. M., Jedwab, A., Johnson, K., Karaali, G., Lauve, A., Le, T., Lewis, S., Li, H., Magaard, K., Marberg, E., Novelli, J., Pang, A., Saliola, F., Tevlin, L., Thibon, J., Thiem, N., Venkateswaran, V., Vinroot, C. R., Yan, N., Zabrocki, M. 2012; 229 (4): 2310-2337
48. **On the spectral analysis of second-order Markov chains** ANNALES DE LA FACULTÉ DES SCIENCES DE TOULOUSE, MATHÉMATIQUES Diaconis, P., Miclo, L. 2012; 22: 573-621
49. **Riffle shuffles with biased cuts** *24th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2012)* Assaf, S., Diaconis, P., Soundararajan, K. 2012; 445-456
50. **Random graphs with a given degree sequence** ANNALS OF APPLIED PROBABILITY Chatterjee, S., Diaconis, P., Sly, A. 2011; 21 (4): 1400-1435
51. **The mathematics of mixing things up** JOURNAL OF STATISTICAL PHYSICS Diaconis, P. 2011; 144 (3): 445-458
52. **Geometric analysis for the metropolis algorithm on Lipschitz domains** INVENTIONES MATHEMATICAE Diaconis, P., Lebeau, G., Michel, L. 2011; 185 (2): 239-281
53. **A rule of thumb for riffle shuffling** ANNALS OF APPLIED PROBABILITY Assaf, S., Diaconis, P., Soundararajan, K. 2011; 21 (3): 843-875
54. **On Barycentric subdivision** COMBINATORICS PROBABILITY & COMPUTING Diaconis, P., Miclo, L. 2011; 20 (2): 213-237
55. **Magical Mathematics: The Mathematical Ideas that Animate Great Magic Tricks** Diaconis, P., Graham, R. Princeton University Press. 2012 ISBN 978-0-691-15164-9
56. **Stochastic alternating projections** ILLINOIS JOURNAL OF MATHEMATICS Diaconis, P., Khare, K., Saloff-Coste, L. 2010; 54 (3): 963-979
57. **On adding a list of numbers (and other one-dependent determinantal processes)** BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY Borodin, A., Diaconis, P., Fulman, J. 2010; 47 (4): 639-670
58. **Functions of random walks on hyperplane arrangements** ADVANCES IN APPLIED MATHEMATICS Athanasiadis, C. A., Diaconis, P. 2010; 45 (3): 410-437
59. **Threads through group theory** *International Conference on the Character Theory of Finite Groups, in Honor of I Martin Isaacs* Diaconis, P. AMER MATHEMATICAL SOC. 2010: 33-47
60. **Geometric analysis for the Metropolis algorithm on Lipschitz domains** INVENTIONES MATHEMATICAE Diaconis, P., Lebeau, G., Michel, L. 2010; 185 (2): 239-281
61. **Properties of uniform doubly stochastic matrices** ANNALS OF APPLIED PROBABILITY Diaconis, P., Chatterjee, S., Sly, A. 2010
62. **Gibbs sampling, conjugate priors and coupling** SANKHYA Diaconis, P., Khare, K., Saloff-Coste, L. 2010; 72-A (1): 136-169

63. **Carries, shuffling, and an amazing matrix** AMERICAN MATHEMATICAL MONTHLY Diaconis, P., Fulman, J. 2009; 116 (9): 788-803
64. **On times to quasi-stationarity for birth and death processes** JOURNAL OF THEORETICAL PROBABILITY Diaconis, P., Miclo, L. 2009; 22 (3): 558-586
65. **Carries, shuffling, and symmetric functions** ADVANCES IN APPLIED MATHEMATICS Diaconis, P., Fulman, J. 2009; 43 (2): 176-196
66. **Micro-local analysis for the Metropolis algorithm** MATHEMATISCHE ZEITSCHRIFT Diaconis, P., Lebeau, G. 2009; 262 (2): 411-447
67. **Supercharacter formulas for pattern groups** TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P., Thiem, N. 2009; 361 (7): 3501-3533
68. **A sequential importance sampling algorithm for generating random graphs with prescribed degrees** JOURNAL OF INTERNET MATHEMATICS Diaconis, P., Blitzstein, J. 2009; 6 (4): 489-522
69. **Book Review: *Probabilistic Symmetries and Invariance Principles* by Olav Kallenberg (Probability and its Applications)** BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P. 2009
70. **Threshold graph limits and random threshold graphs** JOURNAL OF INTERNET MATHEMATICS Diaconis, P., Holmes, S., Janson, S. 2009; 5 (3): 267-320
71. **Riffle shuffles of a deck with repeated cards** *21st International Conference on Formal Power Series and Algebraic Combinatorics* Diaconis, P., Assaf, S., Soundararajan, K. 2009: 89–102
72. **Fastest mixing Markov chain on graphs with symmetries** SIAM JOURNAL ON OPTIMIZATION Boyd, S., Diaconis, P., Parrilo, P., Xiao, L. 2009; 20 (2): 792-819
73. **On characterizations of Metropolis type algorithms in continuous time** ALEA-LATIN AMERICAN JOURNAL OF PROBABILITY AND MATHEMATICAL STATISTICS Diaconis, P., Miclo, L. 2009; 6: 199-238
74. **The Markov chain Monte Carlo revolution** BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P. 2009; 46 (2): 179-205
75. **Horseshoes in multidimensional scaling and local kernel methods** ANNALS OF APPLIED STATISTICS Diaconis, P., Goel, S., Holmes, S. 2008; 2 (3): 777-807
76. **On fixed points of permutations** JOURNAL OF ALGEBRAIC COMBINATORICS Diaconis, P., Fulman, J., Guralnick, R. 2008; 28 (1): 189-218
77. **Gibbs sampling, exponential families and orthogonal polynomials** STATISTICAL SCIENCE Diaconis, P., Khare, K., Saloff-Coste, L. 2008; 23 (2): 151-178
78. **Supercharacters and superclasses for algebra groups** TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P., Isaacs, I. M. 2008; 360 (5): 2359-2392
79. **Threshold graph limits and random threshold graphs.** INTERNET MATHEMATICS Diaconis, P., Holmes, S., Janson, S. 2008; 5 (3): 267-320
80. **Comment: Gibbs sampling, exponential families and orthogonal polynomials** STATISTICAL SCIENCE Berti, P., Consonni, G., Pratelli, L., Rigo, P., Diaconis, P. 2008; 23 (2): 179-182
81. **Comment: Gibbs sampling, exponential families and orthogonal polynomials** STATISTICAL SCIENCE Diaconis, P., Jones, G. L., Johnson, A. A. 2008; 23 (2): 183-186
82. **Rejoinder: Gibbs sampling, exponential families and orthogonal polynomials** STATISTICAL SCIENCE Diaconis, P., Khare, K., Saloff-Coste, L. 2008; 23 (2): 196-200
83. **Projection pursuit for discrete data** *Probability and Statistics: Essays in Honor of David A. Freedman* Diaconis, P., Salzman, J. Institute of Mathematical Statistics. 2008: 265–288
84. **Products of universal cycles** *A Lifetime of Puzzles: A Collection of Puzzles in Honor of Martin Gardner* Diaconis, P., Graham, R. L. edited by Demain, E., Demaine, M., Rodgers, T. AK Peters, Ltd. 2008: 35–55
85. **Graph limits and exchangeable random graphs** RENDICONTI DI MATEMATICA Diaconis, P., Janson, S. 2008; VII (28): 33-61

86. **Comment** JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION Diaconis, P., Lehmann, E. 2008; 103 (481): 16
87. **Shuffling cards, adding numbers, and symmetric functions** *19th ACM-SIAM Symposium on Discrete Algorithms* Diaconis, P. SIAM. 2008: 560–560
88. **Dynamical bias in the coin toss** SIAM REVIEW Diaconis, P., Holmes, S., Montgomery, R. 2007; 49 (2): 211-235
89. **The solutions to Elmsley's problem** MATH HORIZONS Diaconis, P., Graham, R. L. 2007; 14: 22-27
90. **Hit and run as a unifying device** JOURNAL DE LA SOCIÉTÉ FRANÇAISE DE STATISTIQUE Diaconis, P., Graham, R. L. 2007; 148 (4): 5-28
91. **The fastest mixing Markov process on a graph and a connection to a maximum variance unfolding problem** SIAM REVIEW Sun, J., Boyd, S., Xiao, L., Diaconis, P. 2006; 48 (4): 681-699
92. **Separation cut-offs for birth and death chains** ANNALS OF APPLIED PROBABILITY Diaconis, P., Saloff-Coste, L. 2006; 16 (4): 2098-2122
93. **Bayesian analysis for reversible Markov chains** ANNALS OF STATISTICS Diaconis, P., Rolles, S. W. 2006; 34 (3): 1270-1292
94. **Examples comparing importance sampling and the Metropolis algorithm** ILLINOIS JOURNAL OF MATHEMATICS Bassetti, F., Diaconis, P. 2006; 50 (1): 67-91
95. **Markov bases for noncommutative Fourier analysis of ranked data** *Workshop on Computational Algebraic Statistics* Diaconis, P., Eriksson, N. Academic Press Ltd- Elsevier Science Ltd. 2006: 182–95
96. **Fastest mixing Markov chain on a path** AMERICAN MATHEMATICAL MONTHLY Boyd, S., Diaconis, P., Sun, J., Xiao, L. 2006; 113 (1): 70-74
97. **Mathematical Statistics** (Princeton Companion for Mathematics) Diaconis, P. edited by Gowers, T. Princeton University Press. 2006
98. **Sequential Monte Carlo methods for statistical analysis of tables** JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION Chen, Y. G., Diaconis, P., Holmes, S. R., Liu, J. S. 2005; 100 (469): 109-120
99. **Analysis of a Bose-Einstein Markov chain** ANNALES DE L INSTITUT HENRI POINCARÉ-PROBABILITES ET STATISTIQUES Diaconis, P. 2005; 41 (3): 409-418
100. **Exchangeable pairs and Poisson approximation** PROBABILITY SURVEYS Diaconis, P., Chatterjee, S., Meckes, E. 2005; 2 (1): 64-106
101. **Symmetry analysis of reversible Markov chains** JOURNAL OF INTERNET MATHEMATICS Diaconis, P., Boyd, S., Parrilo, P., Xiao, L. 2005; 2 (1): 31-71
102. **What is...a random matrix** NOTICES OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P. 2005; 52 (11): 1348-1349
103. **Fastest mixing Markov chain on a graph** SIAM REVIEW Boyd, S., Diaconis, P., Xiao, L. 2004; 46 (4): 667-689
104. **A super-class walk on upper-triangular matrices** JOURNAL OF ALGEBRA Arias-Castro, E., Diaconis, P., Stanley, R. 2004; 278 (2): 739-765
105. **Random matrices, magic squares and matching polynomials** ELECTRONIC JOURNAL OF COMBINATORICS Diaconis, P., Gamburd, A. 2004; 11 (2)
106. **The Markov moment problem and de Finetti's theorem: Part I** MATHEMATISCHE ZEITSCHRIFT Diaconis, P., Freedman, D. 2004; 247 (1): 183-199
107. **The Markov moment problem and de Finetti's theorem: Part II** MATHEMATISCHE ZEITSCHRIFT Diaconis, P., Freedman, D. 2004; 247 (1): 201-212
108. **Numerical results for the Metropolis algorithm** EXPERIMENTAL MATHEMATICS Diaconis, P., Neuberger, J. W. 2004; 13 (2): 207-213

109. **Uses of exchangeable pairs in Monte Carlo Markov chains** *Stein's Method: Expository Lectures and Applications* Diaconis, P., Stein, C., Holmes, S., Reinert, G. edited by Diaconis, P., Holmes, S. Institute of Mathematical Statistics. 2004: 1–26
110. **Stein's method for Markov chains: First examples** *Stein's Method: Expository Lectures and Applications* Diaconis, P. edited by Diaconis, P., Holmes, S. Institute of Mathematical Statistics. 2004: 27–43
111. **On the distribution of the greatest common divisor** *A Festschrift for Herman Rubin* Diaconis, P., Erdős, P. edited by Dasgupta, A. Institute of Mathematical Statistics. 2004: 126–137
112. **The Poisson-Dirichlet law is the unique invariant distribution for uniform split-merge transformations** ANNALS OF PROBABILITY Diaconis, P., Mayer-Wolf, E., Zeitouni, O., Zerner, M. P. 2004; 32 (1B): 915-938
113. **New tests of the correspondence between unitary eigenvalues and the zeros of Riemann's zeta function** JOURNAL OF PHYSICS A-MATHEMATICAL AND GENERAL Coram, M., Diaconis, P. 2003; 36 (12): 2883-2906
114. **Patterns in eigenvalues: The 70th Josiah Willard Gibbs Lecture** BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P. 2003; 40 (2): 155-178
115. **Brownian motion and the classical groups** *Probability, Statistics and their applications: Papers in Honor of Rabii Bhattacharaya* Diaconis, P., D'Aristotile, A., Newman, C. edited by Athreya, K., Majumdar, M., Puri, M., Waymire, E. Institute of Mathematical Statistics. 2003: 97–116
116. **Random walk on groups: Characters and geometry** *Groups St. Andrews, 2001* Diaconis, P. edited by Campbell, C. M., Roberson, E. F., Smith, G. C. Oxford: Cambridge University Press. 2003: 120–142
117. **The problem of thinking too much** BULLETIN OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES Diaconis, P. 2003; LVI (3): 26-38
118. **Mathematical developments from the analysis of riffle-shuffling** *Groups, Combinatorics and Geometry* Diaconis, P. edited by Ivanov, A., Fuanou, A., Liebeck, M. World Scientific. 2003: 73–97
119. **G. H. Hardy and probability???** BULLETIN OF THE LONDON MATHEMATICAL SOCIETY Diaconis, P. 2002; 34: 385-402
120. **The asymmetric one-dimensional constrained Ising model: Rigorous results** JOURNAL OF STATISTICAL PHYSICS Aldous, D., Diaconis, P. 2002; 107 (5-6): 945-975
121. **Toeplitz minors** JOURNAL OF COMBINATORIAL THEORY SERIES A Bump, D., Diaconis, P. 2002; 97 (2): 252-271
122. **A different construction of Gaussian fields from Markov chains: Dirichlet covariances** *BDI 2001 Conference* Diaconis, P., Evans, S. N. Inst Mathematical Statistics. 2002: 863–78
123. **Random walk on trees and matchings** ELECTRONIC JOURNAL OF PROBABILITY Diaconis, P., Holmes, S. 2002; 7: 1-17
124. **Unitary correlations and the Fejer kernel - Dedicated to Harold Widom on his 70th birthday** MATHEMATICAL PHYSICS ANALYSIS AND GEOMETRY Bump, D., Diaconis, P., Keller, J. B. 2002; 5 (2): 101-123
125. **A geometric interpretation of the Metropolis-Hastings algorithm** STATISTICAL SCIENCE Billera, L. J., Diaconis, P. 2001; 16 (4): 335-339
126. **Combinatorics for the East model** ADVANCES IN APPLIED MATHEMATICS Chung, F., Diaconis, P., Graham, R. 2001; 27 (1): 192-206
127. **Chutes and ladders in Markov chains** JOURNAL OF THEORETICAL PROBABILITY Diaconis, P., Durrett, R. 2001; 14 (3): 899-926
128. **Statistical problems involving permutations with restricted positions** *Symposium on State of the Art in Probability and Statistics: Festschrift for Willem R VanZwet* Diaconis, P., Graham, R., Holmes, S. P. Inst Mathematical Statistics. 2001: 195–222

129. **Linear functionals of eigenvalues of random matrices** TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY Diaconis, P., Evans, S. N. 2001; 353 (7): 2615-2633
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