

Vita  
Joel H. Spencer

Silver Professor of Mathematics and Computer Science  
Courant Institute  
251 Mercer St.  
New York, NY 10012  
212-998-3219  
Email: [spencer@cims.nyu.edu](mailto:spencer@cims.nyu.edu)  
Website: [www.cs.nyu.edu/cs/faculty/spencer/index.html](http://www.cs.nyu.edu/cs/faculty/spencer/index.html)  
Born: April 20, 1946  
Married, Two Children  
Citizen of U.S.

Degrees:

B.S. Massachusetts Institute of Technology, 1965  
Ph.D. Harvard University (advisor A. Gleason), 1970

Member of A.M.S., M.A.A., and S.I.A.M.  
Putnam Competition Winner 1962  
M.A.A. Olympiad Committee 1975-78  
N.A.S. Exchange Fellow, Budapest 1976-77  
Sloane Foundation Fellow, 1977-81  
Editor: *Combinatorica*, 1979-present  
Putnam Competition Committee, 1980  
Weizmann Institute (Israel) visitor, 1980  
University of Reading (U.K.) visitor, 1981  
IREX Exchange Fellow, Budapest, 1984  
Ford Award, 1984  
Budapest Semesters in Math Advisory Board, 1984-present  
Associate Editor: *American Math Monthly*, 1986-1991  
Ford Prize Committee, 1986-89  
NSF-CBMS Lecturer, Durango, 1986  
M.I.T. visitor, 1987, 1990, 2001  
Microsoft visitor, 2003  
Editor: *SIAM J. of Discrete Math*, 1987-1995  
Brain Bogglers (as Maxwell Carver), *Discover*, 1987-89

Editor: Discrete Mathematics, 1988-1996  
ARIDAM lecturer, 1988  
Polya Prize Committee, 1990  
Vice Chair, SIAM Disc Math Group, 1991-1993  
Editor, The Annals of Applied Probability, 1990-1994  
St. Flour (France) Probability School, Lecturer 1991  
Cofounder: Random Structures and Algorithms, 1990-??  
Institute for Mathematics and Its Applications, visitor 1993  
AMS Program Committee for National Meetings 1994-5, chair 1995  
Invited Speaker, International Congress of Mathematicians, Zürich, 1994  
Nachdiplom Lectures, ETH (Zurich), Summer 1995  
University of Melbourne, Australia, Jan-Apr 1998  
Institute for Advanced Study, visitor 1997, 1998  
Chair, SIAM Disc Math Group, 1997-1999  
Erdos Memorial Lectures, Hebrew University 2001  
Fellow of the American Mathematical Society 2013  
Fellow of SIAM, 2017  
Yandex (Moscow) Lecture Series, 2014

## Publications of Joel H. Spencer

1. Intentionally complemented distributive lattices, *Portugaliae Mathematics*, vol. 25, Fasc. 2, 99-104 (1966) (with N.E. Belnap, Jr.).
2. Maximal consistent families of triples, *Journal of Combinatorial Theory* 5, 1-8 (1968).
3. A characterization of clique graphs, *Journal of Combinatorial Theory Series B*, 10, 102-108 (1971) (with Fred S. Roberts).
4. Minimal completely separating systems, *Journal of Combinatorial Theory*, 8, 446-447 (1970).
5. Minimization of  $\pm 1$  matrices under line shifts, *Colloquium Mathematicum (Poland)* 23, 165-171 (1971) (with Tom Brown).
6. Optimal ranking of tournaments, *Networks* 1, 135-138 (1972).
7. Imbalances in k-colorations, *Networks* 1, 379-385 (1972) (with P. Erdős).
8. A constructive solution to a tournament problem, *Canadian Math Bulletin* 14, 45-47 (1971) (with R.L. Graham).
9. On cliques in graphs, *Israel Journal of Math.* 9, 419-421 (1971).
10. Directed graphs as unions of partial orders, *Pacific Journal of Math.* 39, 149-161 (1971) (with P. Fishburn).
11. A remark on coloring integers, *Canadian Math. Bulletin* 14, 45-47 (1971).
12. On small graphs with forced monochromatic triagles, in *Lecture Notes in Mathematics*, vol. 186, *Recent Trends in Graph Theory*, Springer Verlag 1971, 137-141 (with R.L. Graham).
13. Turan's Theorem for k-graphs, *Discrete Mathematics* 2, 183-186 (1972).
14. Minimal scrambling sets of simple orders, *Acta Math. Hung.* 22, 349-353 (1971).
15. Probabilistic methods in combinatorial math (book) (with P. Erdős) (1974) Academic Press/Akademia Kiado, Publishers.

16. The number of semigroups of order  $n$ , Proc. Amer. Math. Soc. 55 (1976) 227-232 (with D.J. Kleitman and B. Rothschild).
17. Families of  $k$ -independent sets, Discrete Mathematics (with D. Kleitman) 6 (1973) 255-262.
18. Editor, The Art of Counting (book) 1973 (M.I.T. Press).
19. Random regular tournaments, Period Math. Hung., 5 (2) (1974) 105-120.
20. On a conjecture of Erdős and Hajnal, Math. Lapok, 22, (1973) 1-2 (in Hungarian).
21. Puncture sets, J. Comb. Theory, (A), 17 (1974) 329-336.
22. A deception game, Amer. Math. Monthly 80 (1973) 416-417.
23. Maximal asymmetry of graphs, Acta Math. Hung., 27 (1976) 47-53.
24. Euclidean Ramsey Theorems I, J. Comb. Theory A. 14 (1973) 241-363 (with P. Erdős, R.L. Graham, P. Montgomery, B.L. Rothschild, E.G. Straus).
25. Euclidean Ramsey Theorems II, Infinite and Finite Sets, Keszthely (Hungary) 1973, 529-557 (with P. Erdős, et. al.).
26. Euclidean Ramsey Theorems III. Infinite and Finite Sets, Keszthely (Hungary) 1973, 529-557 (with P. Erdős et.al.).
27. A generalized Rota conjecture for partitions, Studies in Applied Math., 53 (1974) 239-242.
28. Ramsey Theorems for multiple copies of graphs, Trans. Amer. Math. Soc. 209 (1975) 87-99 (with P. Erdős, S. Burr).
29. Ramsey's Theorem - A new lower bound, J. Comb. Th. Ser. A 18 (1975) 108-115.
30. Nonconstructive methods in discrete mathematics (in Studies in Combinatorics, MAA 1978, G.C. Rota ed.), pp. 142-178.
31. Restricted Ramsey configurations, J. Comb. Th., Ser. A., 19 (1975) 278-286.
32. Factoring the complete graph into factors with large star number, J. Comb. Th. Ser. B. 18 (1975) 180-183 (with P. Erdős, N. Sauer, J. Schaer).

33. Optimal doubling in backgammon, *Operations Research* 23 (1975) 1063-1071 (with E.B. Keeler).
34. Intersection Theorems for Systems of Sets, *Canadian Math Bulletin* 20 (2) 1977, 249-254.
35. Asymptotic Lower Bounds for Ramsey Functions, *Discrete Math* 20 (1977), 69-76.
36. Edge Disjoint Placements of Graphs, *J. Comb. Theory B* 25 (1978), 295-302.
37. Balancing Families of Sets, *J. Comb. Theory A* 25 (1978), 29-37 (with J.E. Olson).
38. On Extremal Density Theorems for Linear Forms (in *Number Theory and Algebra*, Academic Press, 1977), 103-107 (with R.L. Graham and H.S. Witsenhausen).
39. Balancing Games, *J. Comb. Theory B* 23 (1977), 68-74.
40. An Elementary Proof of a Theorem of Kronecker, *The Fibonacci Quarterly* 15 (1977), 9-10.
41. Optimally Ranking Unrankable Tournaments, *Periodica Math Hung* 11 (1980), 131-144.
42. All Finite Configurations are Almost Ramsey, *J. Comb. Theory A* 27 (1979), 401-403.
43. Strong Independence of Graph Copy Functions (in *Graph Theory and Related Topics*, Academic Press, 1978; J.A. Bondy, U.S.R. Murty, eds.) pp. 165-172 (with P. Erdős and L. Lovász).
44. Ramsey's Theorem for Spaces, *Trans. Amer. Math. Soc.* 249 (1979), 363-371.
45. A General Ramsey Product Theorem, *Proc. Amer. Math. Soc.* 73 (1979), 137-139 (with R.L. Graham).
46. Coping with Errors in Binary Search Procedures, *J. Computer and Syst. Sci.* 20 (1980), 396-404 (with D.J. Kleitman, A.R. Meyer, R.L. Rivest, K. Winklman).
47. Ramsey Theory (book), John Wiley (1980) (ix + 174 pp.), 2nd ed., John Wiley (1990) (xi+196 pp.) (with R.L. Graham and B.L. Rothschild).
48. Evolution of the n-cube, *Computers and Math with Applications*, 5 (1979), 33-40 (with P. Erdős).

49. Suresums, *Combinatorica* 1 (1981), 203-208.
50. Extremal Problems, Partition Theorems, Symmetric Hypergraphs, *Combinatorica* 1 (1981), 303-307.
51. Extremal Graph Theory, Bela Bollobas (book review), *Bull. A.M.S.* 2 (1980), 492-496.
52. Counting Magic Squares, *Amer. Math. Monthly* 87 (1980), 397-9.
53. Coloring  $n$ -sets Red and Blue, *J. Comb. Theory A* 30 (1981), 112-113.
54. Balancing Unit Vectors, *J. Comb. Theory A* 30 (1981) , 349-350.
55. Discrete Ham Sandwich Theorems, *European J. Combinatorics* 2 (1981), 291-298.
56. Extremal Uncrowded Hypergraphs, *J. Comb. Theory A* 32 (1982), 321-335 (with M. Ajtai, J. Komlos, J. Pintz, E. Szemerédi).
57. Ramsey Theory and Ramsey Theoreticians, *J. Graph Theory* 7 (1983), 15-23.
58. Sequences with small discrepancy relative to  $n$  events, *Compositio Math.* 47 (1982) 365-392.
59. Canonical Configurations, *J. Comb. Theory A* 34 (1983) 325-330.
60. Unit Distances, *J. Comb. Theory A*, 37 (1984) 231-238 (with Jozsef Beck).
61. Short Theorems with Long Proofs, *Amer. Math. Monthly* 90 (1983) 365-366.
62. Large Numbers and Unprovable Theorems, *Amer. Math. Monthly* 90 (1983) 669-675.
63. Balancing Matrices with Line Shifts, *Combinatorica* 3 (1983) 299-304 (with Jozsef Beck).
64. Integral Approximation Sequences, *Math Programming* 30 (1984) 88-98 (with Jozsef Beck).
65. Guess a Number - with Lying, *Math Magazine* 57 (1984) 105-108.
66. What's not Inside a Cayley Graph, *Combinatorica* 3 (1983) 239-241.
67. Well-distributed two-colorings of integers relative to long arithmetic progressions, *Acta Arithmetica*, 43 (1984) 287-294 (with Jozsef Beck).

68. On graphs which contain all sparse graphs, *Annals Disc. Math* 12 (1982), 21-26 (with L. Babai, F.R.K. Chung, P. Erdős, R.L. Graham).
69. On the decomposition of graphs into complete bipartite subgraphs, in *Studies in Pure Mathematics*, Akademiai Kiado 1983, 95-101 (with F.R.K. Chung and P. Erdős).
70. Unit Distances in the Euclidean Plane, in *Graph Theory and Combinatorics*, Academic Press 1984, B. Bollobas, ed., 294-304 (with E. Szemerédi and W.T. Trotter, Jr.).
71. Asymptotically good coverings, *Pacific J. Mathematics*, 118 (1985), 575-586.
72. Six Standard Deviations Suffice, *Trans. Amer. Math. Soc.*, 289 (1985), 679-706.
73. Balancing Vectors in the Max Norm, *Combinatorica* 6 (1986), 55-65.
74. Extremal Subgraphs for Two Graphs, *J. Comb. Th. Ser B* 38 (1985) 248-260 (with F.R.K. Chung and P. Erdős).
75. Discrepancy of set-systems and matrices, *Europ. J. of Comb.* 7 (1986) 151-160 (with L. Lovász and K. Vesztergombi).
76. Probabilistic Methods, *Graphs and Combinatorics* 1 (1985) 357-382.
77. On a Method for Random Graphs, *Discrete Math.* (1987) (with Z. Palka and A. Rucinski).
78. Four Roads to the Ramsey Function, *Annals of Discrete Math.* 28 (1985), 243-250.
79. Sharp concentration of the chromatic number on random graphs  $G_{n,p}$ . *Combinatorica* 7 (1987) 121-129 (with E. Shamir).
80. Combinatorics by Coin Flipping, *Coll. Math. J.* 17 (1986) 407-412.
81. Functions that never agree, *Eur. J. Comb.* 7 (1986), 207-210 (with A.R. Calderbank, P.C. Fishburn).
82. Three Hundred Million Points Suffice, *J. Comb. Th. A.* 49 (1988) 210-217.
83. Zero-One Laws for Sparse Random Graphs, *J. Amer. Math. Soc.* 1 (1988) 97-115 (with S. Shelah).
84. Ten Lectures on the Probabilistic Method (book) 1987, 2nd Ed. (1994) SIAM.

85. Asymptotic Behavior of the Chromatic Index for Hypergraphs, *J. Comb. Th. - Ser. A* 51 (1989) 24-42 (with N. Pippenger).
86. Ascending Waves, *J. Comb. Th. - Ser. A* 52 (1989) 275-287 (with N. Alon).
87. Disks, Balls and Walls: Analysis of a Combinatorial Game, *Amer. Math Monthly* 96 (1989) 481-493 (with R.J. Anderson, L. Lovász, P. Shor, E. Tardos, S. Winograd).
88. Cutting a graph into Two Dissimilar Halves, *J. Graph Th.* 12 (1988), 121-131 (with P. Erdős, M. Goldberg, J. Pach).
89. Tournament Ranking with Expected Profit in Polynomial Time, *SIAM J. on Disc. Math.* 1 (1988) 372-376 (with S. Poljak and V. Rödl).
90. Threshold Functions for Extension Statements, *J. Comb. Th - Ser A* 53 (1990), 286-305
91. How to Make a Graph Bipartite, *J. Comb. Th. - Ser B* 45 (1988), 86-98 (with P. Erdős, R. Faudree, J. Pach).
92. Infinite Spectra in the First Order Theory of Graphs, *Combinatorica* 10 (1990), 95-102.
93. Coloring the Projective Plane, *Discrete Math* 73 (1988), 213-220.
94. Monochromatic Sumsets, *J. Comb. Th. - Ser. A* 50 (1989), 162-163. (with P. Erdős)
95. Explicit Codes with Low Covering Radius, *IEEE Trans. on Information Theory.* 34 (1988) 1281-1285 (with J. Pach).
96. A Useful Elementary Correlation Inequality, *J. Comb. Th. - Ser. A* 50(1989), 305-307 (with R. Boppana)
97. On the Mean Distance Between Points of a Graph, *Congressus Numerantium* 63 (with P. Erdős and J. Pach).
98. Threshold Spectra via the Ehrenfeucht game, *Discrete Appl. Math* 30(1991), 235-252
99. Undecidable Probabilities, *Random Graphs '87* (M. Karonski, J. Jaworski, A. Rucinski, ed.) John Wiley 1990, pp 305-311
100. Countable Sparse Random Graphs, *Random Structures and Algorithms* 1(1990) 205-214



101. Clique Coverings of the Edges of a Random Graph, *Combinatorica* 13 (1993), 1-6 (with B. Bollobas, P. Erdős, D. West)
102. Note on vertex-partitions of Infinite Graphs, *Discrete Math.*, 79 (1990), 107-108 (with J. Pach)
103. Graph Distance and Euclidean Distance on the Grid *in* Topics in Combinatorics and Graph Theory (1990) (with J. Pach and R. Pollack), 555-559
104. Subgraphs of Large Minimal Degree, *in* Random Graphs, Volume 2 (A. Frieze, T. Łuczak, eds.) John Wiley, 1992, pp 59-66 (with P. Erdős, T. Łuczak)
105. Extremal Subgraphs of Random Graphs, *J. Graph Theory*, 14 (1990), 599-622 (with L. Babai and M. Simonovits)
106. Counting Extensions, *J. Combinatorial Th. (Ser. A)*, 55 (1990), 247-255
107. Gaps in difference sets, and the graph of nearly equal distances, in The Victor Klee Festschrift (P. Gritzman, B. Sturmfels, eds.), AMS, 1991 (with P. Erdős, E. Makai, J. Pach)
108. Lopsided Lovász Local Lemma and Latin Transversals, *Disc. Appl. Math.* ,30 (1991), 151-154 (with P. Erdős)
109. The probabilistic lens: Sperner, Turan and Bregman revisited, *in* A Tribute to Paul Erdős (A. Baker, B. Bollobas, A. Hajnal, eds.) Cambridge University Press, 1990, pp 391-396
110. Nonconvergence in the theory of random orders, *Order* 7 (1991), 341-348
111. Uncrowded Graphs, *in* Mathematics of Ramsey Theory, (J. Nešetřil, V. Rödl, eds.) Springer-Verlag (1991) , Berlin, pp 253-262
112. Set Systems with No Union of Cardinality 0 Modulo  $m$ , *Graphs and Combinatorics* 7 (1991), 97-99 (with N. Alon, D. Kleitman, R. Lipton, R. Meshulam, M. Rabin )
113. When does the Zero-One Law hold?, *J. Amer. Math. Soc.* 4, (1991) 451-468 (with T. Łuczak)
114. Coloring Random and Semi-Random  $k$ -Colorable Graphs, *J. of Algorithms* 19. (1995) 204-234 (with A. Blum)

115. Three Thresholds for a Liar, *Combinatorics, Probability and Computing* 1 (1992) 81-93 (with P. Winkler)
116. Ulam's Searching Problems with a Fixed Number of Lies, *Theoretical Computer Science* 95 (1992), 307-321
117. Probabilistic Construction of Proportional Graphs, *Random Structures & Algorithms*, 3 (1992) 127-138 (with S. Janson)
118. Zero-One Laws with Variable Probability, *Journal of Symbolic Logic* 58 (1993), 1-14
119. *The Probabilistic Method* (book) (xiii+254 pp.) , John Wiley (1992), 2nd ed. (2000), 3rd ed. (2008) (with N. Alon)
120. *Sparse Random Graphs: A Continuum of Complete Theories in Sets, Graphs and Numbers*, Colloquia Math Soc. János Bolyai 60, Budapest 1991, pp 679-690
121. Random Sparse Unary Predicates, *Random Structures & Algorithms* 5 (1994), 375-394 (with S. Shelah)
122. Nine Lectures on Random Graphs, in *Ecole d' Eté de Probabilités de Saint-Flour XXI-1991* (P.L. Hennequin, ed.) *Lecture Notes in Mathematics* 1541, Springer-Verlag. pp 293-347
123. Can You Feel the Double Jump?, *Random Structures & Algorithms*, 5 (1994), 191-204 (with S. Shelah)
124. Randomization, Derandomization, and Antirandomization: Three Games, *Theoretical Computer Science* 131 (1994), 415-430
125. The Janson Inequality, in *Combinatorics, Paul Erdős is Eighty* (volume 1), Keszthely (Hungary), 1993, 421-432
126. A Problem in Covering Progressions, *Stud. Sci. Math. Hung.* 30 (1994), 1-6 (with P. Erdős)
127. From Erdős to Algorithms, *Discrete Math.* 136 (1994), 295-304
128. Sidon Sets with Small Gaps (with P. Tetali) in *Discrete Probability and Algorithms*, (Aldous, et. al., eds) *IMA Volumes in Math and its Application*, vol. 72, Springer-Verlag., pp 103-110

129. Discrepancy in Arithmetic Progressions (with J. Matoušek), *J. American Math. Soc.* 9 (1996), 195-204
130. Probabilistic Methods in Combinatorics, *in* Proceedings of the ICM, Zürich, Switzerland 1994, Birkhäuser Verlag 1995, 1375-1383
131. Asymptotic Packing via A Branching Process, *Random Structures & Algorithms* 7 (1995), 167-172
132. A note on triangle-free graphs *in* Random Discrete Structures (D. Alduous, R. Pemantle, eds.), vol. 76, IMA Volumes in Mathematics and Its Applications, Springer-Verlag, 1995. pp 117-120. (with P. Erdős, S. Janson and T. Łuczak)
133. Modern probabilistic methods in Combinatorics *in* Surveys in Combinatorics 1995 (P. Rowlinson, ed.), London Math Society Lecture Note Series 218, Cambridge University Press, pp 215-231
134. Four Squares with Few Squares, *in* Number Theory: New York Seminar 1991 – 1995, (D. and C. Chudnovsky, M. Nathanson, eds.) Springer Verlag, 1996, 295-297
135. Sudden emergence of a giant  $k$ -core in a random graph. *J. Combinatorial Theory, Ser B.* 67 (1996), 111-151 (with B. Pittel, N. Wormald)
136. Probabilistic Methods, *in* Handbook of Combinatorics (R.L. Graham, M. Grötschel, L. Lovász, eds.) Elsevier Science 1995, pp 1785-1817
137. Asymptotically Optimal Covering Designs, *J. Combinatorial Theory, Ser A* 75 (1996), 270-280 (with Daniel M. Gordon, Greg Kuperberg, Oren Patashnik)
138. Nearly perfect matchings in regular simple hypergraphs, *Israel J. Math* 100 (1997), 171-187 (with Noga Alon and Jeong-Han Kim)
139. Enumerating Graphs and Brownian Motion, *Communications on Pure and Appl. Math.* 50 (1997), 293-296
140. Covering with latin transversals, *Discrete Applied Math.*, 57 (1995), 1-10 (with Noga Alon and Prasad Tetali)
141. Smoothness laws for random ordered graphs, *in* Logic and Random Structures, DIMACS series vol. 33, Amer. Math. Soc., (Ravi Boppana, James Lynch, eds.), 15-32 (with Ravi Boppana)

142. Real Time Asymptotic Packing, *Electronic J. Combinatorics*, 4(2) (1997) R19 (12pp)
143. The Erdős Existence Argument, *in* *The Mathematics of Paul Erdős, Algorithms and Combinatorics* vol. 13, Springer, 1997. (Ron Graham, Jarik Nešetřil, eds.)
144. A Useful Elementary Correlation Inequality, II, *J. Combinatorial Theory (Ser A)* 84 (1998), 95-98
145. Random Unary Predicates: Almost Sure Theories and Countable Models, *Random Structures & Algorithms* 13 (1998), 229-248 (with Katherine St. John)
146. An Asymptotic Isoperimetric Inequality, *GAFA, Geom. funct. anal.* 8 (1998), 411-436 (with N. Alon and R. Boppana)
147. Geometric discrepancy theory, *in* *Advances in Discrete and Computational Geometry* (B. Chazelle, J. Goodman, R. Pollack, eds.), *Contemporary Mathematics* vol. 223, American Math Soc., pp 355-368
148. New bounds on crossing numbers, *Discrete and Computational Geometry* 14 (2000), 623-644 (with J. Pach and G. Toth).
149. Uniformly Distributed Distances - A Geometric Application of Janson's Inequality, *Combinatorica* 19 (1999), 1-14 (with J. Pach)
150. On the limit values of probabilities for the first order properties of graphs, *in* *Contemporary Trends in Discrete Mathematics, DIMACS Series* vol. 49, Amer. Math. Soc., R. Graham et. al., eds., Amer. Math. Soc. 1999, pp 317-336 (with Lubos Thoma)
151. Ups and Downs of First Order Sentences on Random Graphs, *Combinatorica* 20 (2000), 263-280 (with G. Tardos)
152. Uniform Boundedness of Critical Crossing Probabilities implies Hyperscaling, *Random Structures and Algorithms* 15 (1999), 368-413 (with C. Borgs, J.T. Chayes and H. Kesten)
153. Counting Dyadic Equipartitions of the Unit Square, *Discrete Mathematics* 257 (2002), 481-499 (with J. Lagarias and J. Vinson)
154. Packing Ferrers Shaps, *Combinatorics Probability and Computing* 9 (2000), 205-211 (with N. Alon and Miklós Bóna)

155. Ultrahigh Moments for a Brownian Excursion, *in* Mathematics and Computer Science Algorithms, Trees, Combinatorics and Probabilities (Daniele Gardy, Abdelkader Mokraddem, Editors) Birkhauser Verlag, 2000, p 323-328
156. The tenacity of zero-one laws, *Electronic J Combinatorics* 8 (2001), R17, 15pp (with Katherine St. John)
157. Discrete Probability, *in* Mathematics Unlimited 2001 and Beyond, Springer-Verlag, 2001, Bjorn Engquist, Wilfried Schmid (Eds.), pp.1095–1104.
158. The degree sequence of a scale-free random graph process, *Random Structures & Algorithms* 18 (2001), 279-290 (with B. Bollobás, O. Riordan and G. Tusnady)
159. Random Graphs, Sets and Tournaments, *in* Paul Erdős and His Mathematics, vol 2. Bolyai Society Mathematical Studies, vol XI. (Eds. G. Halasz, L. Lovasz, M. Simonovits, V. T. Sos) Springer, Berlin, pp 637-648 (2002)
160. The Strange Logic of Random Graphs (book) Springer, 2001.
161. Birth of the Infinite Cluster: Finite-Size Scaling in Percolation, *Communications in Mathematical Physics* vol. 224 (1) 2001, pp 153-204 (with C. Borgs, J. Chayes, H. Kesten),
162. Packing Random Rectangles, *Probab. Theory Relat. Fields* 120 (2001), 585-599 (with E.G. Coffman, Jr., George Lueker, and Peter Winkler)
163. Crossing Numbers for Random Graphs, *Random Structures & Algorithms* 21 (2002), 347-358 (with Géza Toth)
164. Random Dyadic Tilings of the Unit Square, *Random Structures & Algorithms*, 21 (2002), 225-251 (with Svante Janson and Dana Randall)
165. A Halfliar's Game, *Theoretical Computer Science*, 313 (2004), 353-369 (with Ioana Dumitriu)
166. New results on the distribution of distances determined by a point set, *Bolyai Soc. Math. Studies* 11, Paul Erdos and his Mathematics, II, (Eds. G. Halasz, L. Lovasz, M. Simonovits, V. T. Sos) Springer, Berlin, J. Bolyai Math. Soc., Budapest, 2002, 499-511. (with E. Makai and J. Pach)

167. Branching processes with Negative Offspring Distributions, *Annals of Combinatorics* 7 (2003), 35-47 (with I. Dumitriu and C. Yan)
168. The Halfie Problem, *Journal of Combinatorial Theory, Ser A*, 103 (2003), 69-89 (with C. Yan)
169. A Scaling Result for Explosive Processes, *Electronic J. Combinatorics* 11(1) R31 (2004) 14pp (with Michael Mitzenmacher and Roberto Oliveira)
170. The Biplanar Crossing Number of the Random Graph, *in Towards a Theory of Geometric Graphs*, Janos Pach ed., *Contemporary Mathematics* 342, 2004, AMS. pp 269-272
171. Random Subgraphs of Finite Graphs: I. The Scaling Window under the Triangle Condition, *Random Structures & Algorithms* 27, 2005, 137-184. (with Christian Borgs, Jennifer T. Chayes, Remco van der Hofstad and Gordon Slade)
172. Random subgraphs of finite graphs: II. The lace expansion and the triangle condition, *Annals of Probability* 33, 2005, 1886-1944. (with Chistian Borgs, Jennifer T. Chayes, Remco van der Hofstad and Gordon Slade)
173. Random subgraphs of finite graphs: III. The phase transition for the n-cube, *Combinatorica* 26 (2006), 395-410. (with Chistian Borgs, Jennifer T. Chayes, Remco van der Hofstad and Gordon Slade)
174. Simulating a Random Walk with Constant Error, *Combinatorics, Probability & Computing*, 15, (with Joshua N. Cooper) (2006), 815-822
175. How Complex are Random Graphs in First Order Logic, *Random Structures & Algorithms* (with Jeong-Han Kim, Oleg Pikhurko and Oleg Verbitsky) 26, 2005, 119-145
176. Discrepancy Games, *Electronic Journal of Combinatorics*, 12(1), R51 (2005), 9 pp (with Noga Alon, Michal Krivelevich and Tibor Szabó)
177. Succint Definitions in the First Order Theory of Graphs (with Oleg Pikhurko and Oleg Verbitsky), *Annals Pure and Applied Logic* 139, 2006, 74-109
178. Connectivity Transitions in Networks with Super-Linear Preferential Attachment, *Internet Mathematics* 2 (2005), 121-163 (with Roberto Oliveira)

179. The Liar Game over an Arbitrary Channel (with Ioana Dumitriu), *Combinatorica* 25 (2005), 537-559
180. The Two Batch Liar Game over an Arbitrary Channel (with Ioana Dumitriu), *SIAM Journal of Discrete Math* 19 (2006), 1056-1064
181. Birth Control for Giants (with Nick Wormald), *Combinatorica* 27 (2007), 587-628
182. Counting Connected Graphs Asymptotically (with Remco van der Hofstad), *European Journal of Combinatorics* 27 (2006), 1294-1320
183. Decomposable graphs and definitions with no quantifier alternation, (with Oleg Pikhurko and Oleg Verbitsky) *European Journal of Combinatorics* 28 (2007) 2264-2283
184. Deterministic Random Walks on the Integers (with Joshua Cooper, Benjamin Doerr and Gabor Tardos), *European Journal of Combinatorics* 28 (2007), 2072-2090
185. First Order Definability of Trees and Sparse Random Graphs (with Tom Bohman, Alan Frieze, Tomasz Luczak, Clifford Smyth and Oleg Pikhurko), *Combinatorics, Probability & Combinatorics* 16 (2007), 375-400.
186. Logic and Random Structures, in *Finite Model Theory and Its Applications*, pp 231-255, Springer, 2007.
187. A Point Process Describing the Component Sizes in the Critical Window of the Random Graph Function, *Combinatorics, Probability & Computing* 16 (2007), 631-658 (with Svante Janson)
188. Erdős Magic, in *LATIN 2002, Lecture Notes in Computer Science*, volume 2286/2002, pp 111-119. Springer
189. The complexity of random order structures, *Annals of Pure and Applied Logic* 152 (2008), 174-179 (with Katherine St. John)
190. On the size of induced acyclic subgraphs in random digraphs, *DMTCS* 10 (2008), 47-54.
191. The maturation of the probabilistic method, *in Building Bridges* (M. Grötschel, G. Katona, eds.) *Bolyai Society Mathematical Studies* 19, Springer. pp 515-524, 2008.
192. Explosive Percolation in Random Networks, *Science*, 323 (5920) 1453-1455, 2009. (with Raissa D'Souza and Dimitris Achlioptas)

193. Complexity and Effective Prediction, *Games and Economic Behavior* (2010), 165-168 (with Abraham Neyman)
194. The Giant Component - The Golden Anniversary, *Notices of the AMS* 57 (2010), 720-724
195. Eighty Years of  $R(3, k)$  ... And Counting!, in *Ramsey Theory: Yesterday, Today and Tomorrow* (A. Soifer, ed.), 2011, Birkhauser, pp 27-38.
196. The Elementary Proof of the Prime Number Theorem, *Math Intelligencer* 31 18-23 (with Ron Graham)
197. Deterministic random walks on regular trees, *Random Structures & Algorithms* 37 (2010) 353-366 (with Joshua Cooper, Benjamin Doerr, Tobias Friedrich)
198. The second largest component in the supercritical 2D Hamming graphs, *Random Structures & Algorithms* 36 (2010),80-89 (with Malwina Luczak and Remco v.d. Hofstad)
199. Dynamics of Stochastic Neuronal Networks and the Connections to Random Graph Theory, *Math. Model Nat. Phenom.*, to appear (with Lee deVille and Charles Peskin)
200. Phase Transitions for Modified Erdős-Rényi Processes, *Arkiv för Matematik* 50 (2012), 305-329 (with Svante Janson)
201. Potpourri, *Journal of Combinatorics*, 1 (2010), 237-264
202. The Bohman-Frieze process near criticality, *Random Structures & Algorithms* 43 (2013), 221-250 (with Mihyun Kang and William Perkins)
203. Deterministic Discrepancy Minimization, *Algorithmica* (2013) (with Nikhil Bansal)
204. Queueing with Future Information, *Annals of Applied Probability* 24 (2014), 2091-2142 (with Madhu Sudan and Kuang Xu)
205. *Asymptopia* (book), American Math Society (2014)
206. On the length of a random minimum spanning tree, *Combinatorics, Probability & Combinatorics* 25 (2015), 89-107 (with Colin Cooper, Alan Frieze, Nate Ince and Svante Janson)
207. Heat diffusion with frozen boundary, *Journal of Statistical Physics* 161, 2015, 521-531 (with Laura Florescu, Shirshendu Ganguly and Yuval Peres)



208. First Order Probabilities for Galton-Watson Trees, Journey through Discrete Math: A tribute to Jiri Matousek (accepted), (with Moumanti Podder)
209. Bounded quantifier depth spectra for random graphs, Discrete Mathematics, 2015 339, 1651-1664 (with M. Zhukovskii)
210. On the spectra of first order language properties for random graphs, Doklady Mathematics, 2015, 463, 642-645. (with M. Zhukovskii)
211. Galton-Watson probability contraction, Electronic Communications in Probability 2017, Vol. 22, paper no. 20, 1-16 (with Moumanti Podder)

-