

# GÁBOR J. SZÉKELY

## Selected Publications

### **BOOKS**

12. *The Energy of Data* (with Rizzo, M.L.) Chapman & Hall/CRC: available 2017.
11. *Contests in Higher Mathematics*, Springer, New York, Paperback, 2011, 570 pp.
10. *Paradoxes in the Mathematics of Randomness* (in Hungarian), Typotex, Budapest, 2004. (First Hungarian edition, Muszaki Kiado, Budapest, 1982).
9. *Statistics for the 21st Century* (Ed. with C. R. Rao), Dekker, New York, 2000.
8. *Contests in Higher Mathematics*, Springer, Japanese Edition in 5 volumes, 1998-2000.
7. *Contests in Higher Mathematics*, Springer, New York, 1996, 570 pp.
6. *Paradoxes in Probability Theory and Mathematical Statistics*, Reidel-Kluwer, Dordrecht-Boston, Mass. 1986, xii + 250 pp. (New English edition: Springer 2006).
5. *Algebraic Probability Theory* (with I.Z. Ruzsa), Wiley, New York, 251 pp, 1988.
4. *Paradoxa, Klassische und Neue Überraschungen aus Wahrscheinlichkeitsrechnung und Matematischer Statistik*, H. Deutsch, Frankfurt am Main, 1990, 240 pp.
3. *Paradosky v teorii veroyatnostei i matematicheskoi statistike* (with a Preface by V. V. Sazonov and V.V. Ulyanov), Mir, Moscow, 1990, 240 pp.
2. *Multivariate Statistical Analysis* (in Hungarian, with T.F. Mori), MK, Budapest, 1986.
1. *Paradoxes in Probability Theory and Mathematical Statistics* (in Hungarian), Budapest, Müszaki Kiadó, 1982.

### **BOOK TRANSLATION**

13. Davis, P. and Hersh, R.: *The Mathematical Experience*, Birkhäuser, Boston, (A matematika élménye), Muszaki Kiado, Budapest, 1984; Typotex, Budapest, 2010.

## **PAPERS**

126. The Energy of Data (with Rizzo, M.L.), *Annual Review of Statistics and Its Applications*, Invited Paper, 2017 (to appear).
125. Partial Distance Correlation, *Proceedings of the 2nd International Conference on Nonparametric Statistics* (with Rizzo, M.L.), Springer (to appear).
124. Fast Computing for Distance Covariance (with Huo, X.), *Technometrics*, 2016 (to appear).
123. Energy Distance, *WIREs Computational Statistics* (with M. L. Rizzo), Wiley, Volume 8 Issue 1, 27-38. Available online Dec., 2015, doi: 10.1002/wics.1375, 2016.
122. On a Nonparametric Notion of Residual and its Applications (with Patra, R. K. and Sen, B.) *Statistics & Probability Letters* 109, 208-213, 2016.
121. An analytic generalization of independence and identical distributiveness (with Kagan, A.), *Statistics & Probability Letters*, 110, 244–248, 2016.
120. Schur properties of convolutions of gamma random variables (with Roosta, F.), *Metrika*, 78/8 , 997-1014, 2015
119. Assessing stochastic algorithms for large scale nonlinear least squares problems using extremal probabilities of linear combinations of gamma random variables (with Roosta, F. and Ascher, U.), *SIAM/ASA Journal on Uncertainty Quantification*, 3(1), 61–90, 2015.
118. Partial distance correlation with methods for dissimilarities (with Rizzo, M. L.) *Ann. Statist.* Vol. 42, 6, 2382-2412, 2014.
117. Integer valued means (with Bennett, C. and Holland, C.), *Aequationes Mathematicae*, Vol. 88, 1-2, 137-149, 2014.
116. On the correlation of the supremum and the infimum and of maximum gain and maximum loss of Brownian motion with drift (with Vardar-Acar, C. and Zirbel, C.) *Journal of Computational and Applied Mathematics*, Vol. 248, 15, 61–75, 2013.
115. Energy statistics: statistics based on distances (with Rizzo, M.L.) *Journal of Statistical Planning and Inference*, Vol. 143, Issue 8, 1249-1272, 2013.
114. The distance correlation t-test of independence in high dimension (with Rizzo, M. L.), *J. Multivariate Analysis*, Vol.117, 193-213, 2013.
113. On the uniqueness of distance covariance (with Rizzo, M.L.) *Statistics & Probability Letters* Vol. 82, Issue 12, 2278–2282, 2012.
112. Brownian covariance and central limit theorem for stationary sequences (with N. K. Bakirov), *Theory of Probability and Its Applications*, Vol. 55, No. 3, 371-394, 2011.

111. A test of independence in two-way contingency tables based on maximal correlation. (with Yenigun, C.D. and Rizzo, M.L. Communications in Statistics: Theory and Methods, Vol. 40, 12, 2225-2242, 2011.
110. DISCO analysis: A nonparametric extension of analysis of variance (with M. Rizzo) 2010, Annals of Applied Statistics, Vol. 4, No. 2.
109. Brownian distance covariance (with M. Rizzo) 2009, Annals of Applied Statistics, Vol. 3, No. 4, 1236-1265.
108. Rejoinder: Brownian distance covariance (with M. Rizzo) 2009, Annals of Applied Statistics, Vol. 3, No. 4, 1303-1308.
107. Measuring and testing dependence by correlation of distances (with M. Rizzo and N. Bakirov), Annals of Statistics, Vol. 35 No. 6, 2769-2794, Dec. 2007.
106. The uncertainty principle of game theory (with M. Rizzo), The American Math. Monthly, Vol. 8, 688-702, Oct., 2007.
105. Characterizations with zero covariances (with E. Seneta), J. Australian Math. Soc., 81, no. 3, 351-361, 2006.
104. A multivariate nonparametric test of independence (with N. Bakirov and M. Rizzo), Journal of Multivariate Analysis 97/8, 1742-1756, 2006.
103. Finite exchangeability (with J. Kerns), Journal of Theoretical Probability, 19/3, 589-608, 2006.
102. Students' t-test for Gaussian scale mixtures (with N.K. Bakirov) Zapiski Nauchnyh Seminarov POMI, 328, Probability and Statistics. Part 9 (editor V.N.Sudakov) 5-20, 2006 [English translation to appear in the "Journal of Mathematical Sciences"]
101. Student's t-test for scale mixtures, Vol of the 2<sup>nd</sup> Lehmann Symposium, IMS Lecture Notes – Monograph Series, pp.10-18, 2006.
100. Negative probabilities in finance, Wilmott J. of Quantitative Finance. 66-68, July 2005.
99. Hierarchical clustering via joint between-within distances: extending Ward's minimum variance method (with M. Rizzo), Journal of Classification 22 / 2, 151-183, 2005.

98. Remain Steadfast With the St. Petersburg Paradox to Quantify Irrational Behavior (with D. St. P. Richards), *The American Statistician* 59/3, 235-240, 2005.
97. Chebyshev-type inequalities for scale mixtures (with V. Csiszar and T.F. Mori). *Statistics & Probability Letters* 71, 313-335, 2005.
96. A new test for multivariate normality (with M. Rizzo), *Journal of Multivariate Analysis* 93, 58-80, 2005.
95. Characterizations of distributions by linear forms of order statistics (with U. Gather), *Invited paper, Comm. in Statistics*, 33/12, 2913-2920, 2004.
94. The St. Petersburg paradox and the crash of the high-tech stocks in 2000 (with D. St. P. Richards), *The American Statistician* 58/3, 225-231, 2004.
93. Fermat's last theorem for rational exponents (with C. D. Bennett and A. M. W. Glass), *The Amer. Math. Monthly* 11/4, 322-329, 2004.
92. Mean distance test of Poisson distribution (with M. Rizzo), *Statist. & Probab. Letters*, 67/3, 241-247, 2004.
91. Limiting survival function of self-similar structures. *Naval Research Logistics*, 50, 1-11, 2003.
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89. The limit theorem of hierarchical structures (with L. Klebanov and J. Steele), in: *Limit Theorem in Probability and Statistics*, Vol. II. (ed. P. Revesz), 225-236, J. Bolyai Math Soc., Budapest, 2002.
88. Characterization of diagonal symmetry: location unknown, and a test based on allied U-processes (with P. K. Sen), *Journal of Statistical Planning* 102/2, 349-358, 2002.
87. Independence and atoms (with T.F. Mori), *Proceedings of the American Mathematical Society*, 130/1, 213-216, 2002.
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85. A characteristic measure of asymmetry and its application for testing diagonal symmetry (with T. F. Mori), *Communications in Statistics: Theory and Methods* 30/8&9, 2001, 1633-1639.

84. A characterization of Gaussian distributions by signs of even cumulants (with L.B. Klebanov) In: Asymptotic Methods in Probability and Statistics with Applications, Eds: N. Balakrishnan, I.A. Ibragimov, V.B. Nevrozov, Birkhauser, Boston, 2001, 51-54.
83. Characterization of distributions in reliability. (with L. B. Klebanov). In: Recent Advances in Reliability Theory. Methodology, Practice, and Inference, (Eds. N.Limnios and M.Nikulin ), Birkhauser, Boston - Basel - Berlin, 2000, pp.105-116.
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81. Identifiability of distributions of independent random variables by linear combinations and moments (with C. R. Rao), *Sanhkyā A* 62/2 (2000), 193-202.
80. How to transform correlated random variables into uncorrelated ones. (with T.F. Mori). *Appl. Math. Lett.* 13/6 (2000), 31—33.
79. Pre-limit theorems and their applications (with L. B. Klebanov and S. T. Rachev) *Acta Appl. Math.* 68 (1999), 154-174.
78. An inconsistent location MLE (with A.K.Gupta, and G. Zsigri), *Mathematical Methods of Statistics*, 8/1 (1999), 119-120.
77. On a paper of V. B. Nevzorov, *Math. Methods of Statistics* 7/1, 1998, 122.
76. Decompositions in discrete semigroups (with Holland, C.W. and Clark E.W.) *Studia Sci. Math. Hung.* 34, 1998, 15-23.
75. On estimation with elementary symmetric polynomials (with G. Rempala), *Random Operators and Stochastic Equations*, 6/1, 1998, 77-88.
74. Die Entropie, In: *Jenseits von Kunst* ( ed. Peter Weibel, with D. Petz)), Passagen Verlag, 1997, 340-342.
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72. A direct decomposition of the convolution semigroup of probability distributions (with A. Zempleni), *Studia Sci Math Hung.* 32, 1997, 20-27.
71. Characterization of characteristic curves (with D. Bshouty), *Studia Sci. Math. Hung.* 1996, 31, 300-308.

70. Arithmetics in Commutative Semigroups (with A. Zempleni), Lecture Notes Vol. 13. Ser. Discrete Mathematics and Applications (Series ed: J. Siemons), University of East Anglia Norwich NR47TJ , 1996 .
69. On the lottery problem (with Z. Furedi and Z. Zubor), Journal of Combinatorial Design, 4/1, 1996, 5-10.
68. Characterization of characteristic curves (with D. Bshouty), Studia Sci. Math.Hung. 31, 1996, 27-33.
67. Inference for a general type II censorship model (with E. Pena and V. K. Rohatgi), Statistics, Vol. 26, No.3, 1995, 241-252.
66. The dependence of uncorrelated statistics (with D. Song and A.K. Gupta), Appl. Math. Letters, Vol. 7, No.5, 1995/5, 29-32.
65. On limit distributions of random permanents (with L. Szeidl), Invited Paper, Exploring Stochastic laws, Festschrift in Honor of the 70th birthday of Acamemician V.S. Korolyuk (ed. A.V. Skorokhod and Yu. V. Borovskikh) ISP, 1995, 443-455.
64. On location and scale maximum likelihood estimators (with A.K. Gupta), Proc. American Mathematical Society 120/2, 1994, 585-588.
63. On aging life distribution classes: further probability properties and tests (with V.K. Rohatgi and G. Zsigri), J. of Statistical Research 28, 1994, 111-122.
62. Testing for Poissonity-normality vs. other infinite divisibility (with A.K. Gupta and T.F. Mori), Statistics & Probability Letters 19, 1994, 245-248.
61. On multivariate moments (with T.F. Mori and V.K. Rohatgi), Publ. Inst. Stat. Univ. Paris, 38/2, 1994, 101-108.
60. On the extrema of the expected values of functions of independent identically distributed random variables (with D.Bshouty, W. Hengartner, V.K. Rohatgi), Ulam Quaterly, 2/1, 1993, 1-10.
59. On the arithmetic of independent discrete random variables (with J. Englander), Annales Univ. Sci. Budapest 36, 1993, 5-8.
58. A problem on characteristic functions, Statistica Neerlandica 47/3, 1993, 232.
57. On multivariate skewness and kurtosis (with T.F. Mori and V. K. Rohatgi), Theory of Probability and Its Applications, 38/3, 1993, 675-679.
56. Geysers and tests (with A.K. Gupta) Periodica Polytechnica, 36, 1993, 365-368.

55. An inverse Markov-Chebyshev inequality (with V.K. Rohatgi), *Periodica Polytechnica*, 36, 1993, 455-458.
54. Lattice ordered groups with a prescribed minimum for given elements (with C. Holland) *Algebra Universalis*, 29, 1992, 79-87.
53. On infinite divisibility of polynomials in infinitely divisible random variables (with V.K. Rohatgi) in: *Probability Theory and Applications* (ed. J. Galambos), Kluwer, London, 1992, 103-106.
52. On the non-existence of ancillary statistics (with A.A. Pena and V.K. Rohatgi) *Statistics & Probability Letters*, 15, 1992, 357-360.
51. On the background of some correlation inequalities (with V. K. Rohatgi), *J. Statistical Computation and Simulation*, 40, 1992, 260-262.
50. On maximum likelihood estimation of the center of a centrally symmetric convex domain (with A. Amey, A.K. Gupta, V. Norton), *J. of Statistical Computation and Simulation*, 39, 1991, 1-7.
49. The Choquet-Deny convolution equation for probability measures on Abelian semigroups (with W. Zeng), *J. Theoretical Probability* 3, 1990, 361-365.
48. An unexpected decomposition of a symmetric random variable (with V. K. Rohatgi), *J. Statist. Computation and Simulation* 34, 1990, 162-164.
47. Infinite divisibility of products and quotients of iid random variables (with F. W. Steutel and V. K. Rohatgi), *Math. Scientists* 15, 1990, 53-59.
46. Characterizations of distributions by independence of linear forms of order statistics (with U. Gather), University of Dortmund, 1989.
45. When is a weighted average of ordered sample elements a maximum likelihood estimator of the location parameter? (with Z. Buczolich), *Advances in Applied Mathematics* 10, 1989, 439-456.
44. Sharp inequalities between skewness and kurtosis (with V. K. Rohatgi), *Statist. and Probability Letters* 8, 1989, 297-299.
43. Eugene Lukacs, 1906-1987 (with V. K. Rohatgi), *Aequationes Mathematicae* 38, 1989, 1-8, MR90c:01094.
42. A characterization of uniform distributions via maximum likelihood estimation of its location parameter (with Z. Buczolich), *Oberwolfach Conference Volume on Extreme*

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39. How to eliminate probabilities from probability theory (with I. Z. Ruzsa), First World Congress of the Bernoulli Society, Tashkent, Abstracts, 1986.52.
38. Max-arithmetics of probability distributions (with A. Zempleni), First World Congress of the Bernoulli Society, Tashkent, Abstracts, 1986.
37. Haar measure on semigroups, Alfred Haar Memorial Conference, Coll. Math. Soc. Bolyai 49, Noth Holland, Amsterdam-New York, 1986, 917-928, MR89a:43002.
36. A note on our paper "Theory of decomposition in semigroups" (with I. Z. Ruzsa), Advances in Mathematics 60, 1986, 235-236, MR86h:43002.
35. Haar measures in a representation and a decomposition problem, Probability Measures on Groups VIII (Oberwolfach, 1985, ed. H. Heyer), Lecture Notes in Mathematics 1210, Springer, Berlin-New York, 158-163, 1986, MR88g:60025.
34. A note on the background of several Bonferroni-Galambos type inequalities (with T. F. Mori), J. Applied Probability 22, 1985, 836-843, MR86m:60030.
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32. Application of the saddle-point method in the theory of symmetric statistics (with T. F. Mori), 4th Vilnius Conference on Probability Theory and Statistics, Vilnius, 1985, 202.
31. A characterization of infinitely divisible Markov chains with finite state space (with T. F. Mori, F. Gondocs, G. Michaletzky), Annales Univ. Sci. Budapest Sect. Math. 27, 1985, 137-141, MR87m:60145.
30. An Erdos-Renyi type generalization of the Borel-Cantelli lemma (with T. F. Mori), Studia Sci. Math. Hung. 18, 1983/1985, 173-182, MR86i:60086.
29. An extremal property of rectangular distributions (with T. F. Mori), Statistics and Probability Letters 3, 1985, 107-109, MR87d:62026.

28. Theory of decomposition in semigroups (with I. Z. Ruzsa), *Advances in Mathematics* 56, 1985, 9-27, MR86h:43001.
27. Solution of Advanced Problem 6431 (with A. Zempleni), *The American Math. Monthly* 92/2, 1985, 149-150.
26. On multiplicative infinite divisibility, *Proc. 7th Brasov Conference on Propability Theory*, August 29-September 4, 1982, Acad. Publ. Bucuresti, 1984, 579-582, MR87m:60046.
25. How to win if you can? (with T. F. Mori), *Limit Theorems in Probability and Statistics* (ed. P. Revesz), Coll. Math. Soc. J. Bolyai 36, North-Holland, Amsterdam-New York, 1984, 791-806, MR87c:62015.
24. Decomposition of probability measures on groups (with I. Z. Ruzsa), *Probability Measures on Groups VII*, Oberwolfach, 1983, Lecture Notes in Math. 1064, Springer, Berlin-New York, 1984, 409-417, MR86i:60027.
23. Asymptotic independence of "pure head" stopping times (with T.F. Mori), *Statistics and Probability Letters* 2, 1984, 5-8, ZM526.60023, MR86c:60033.
22. Homomorphism of renewal sequences, *Proc. 3rd Pannonian Symp. on Math. Statist.*, Visegrad, September 12-17, 1982, Reidel, Dordrecht- Boston, Mass., 1984, 335-339, ZM532.60087, 85g:60005.
21. Advanced Problem 6431 (with A. Zempleni). *The American Math. Monthly* 90/6, 1983, 402.
20. Convolution quotients of nonnegative functions (with I. Z. Ruzsa), *Monatshefte f. Math.* 95, 235-239, 1983, MR84j:43003.
19. Solution of Problem E2888 (with T. F. Mori), *The American Math. Monthly* 89/9, 1982, 701.
18. Irreducible and prime distributions (with I.Z. Ruzsa), *Proceedings of Probability Measures on Groups Conference*, Oberwolfach, 1981, lecture Notes in Math. 928, Springer, Berlin-New York, 1982 (ed. L. Schmetterer, H. Heyer), 354-361, MR84a:60021.
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16. Intersections of traces of random walks with fixed sets (with I. Z. Ruzsa), *Annals of Probability* 10, 1982, 132-136, MR83a:60108.

15. Asymptotic behavior of symmetric polynomial statistics (with T.F. Mori), *Annals of Probability* 10, 1982, 124-131, MR83a:60042.
14. A limit theorem for elementary symmetric polynomials of independent random variables, *Z. Wahrscheinlichkeitstheorie verw. Geb.* 59, 1982, 355-360, MR85a:60030.
13. Problem E 2888 (with T.F. Mori), *The American Math. Monthly* 88/5, 1981, 349.
12. Extension of partial homomorphisms in probability theory, *Lecture Notes in Statistics* 8, First Pannonian Symp. on Math. Statist., Bad Tatzmannsdorf, 1979 (ed. L. Schmetterer, P. Revesz, V. M. Zolotarev), Springer, Berlin-New York, 1981, 262-265, MR83b:60012.
11. An extension of expectation (with I.Z. Ruzsa), *Z. Wahrscheinlichkeitstheorie verw. Geb.* 53, 1980, 17-20, MR82a:60017.
10. Algebraic dimension of semigroups with application to invariant measures, *Semigroup Forum* 17, 1979, 185-187, MR80i:22008.
9. The Brownian taboo bridge with application in the theory of nonparametric statistics, *Trans. European Meeting of Statisticians 1974*, Prague, Vol. A, 1977, Reidel, Dordrecht, 563-566, MR58 7883.
8. Probabilities in operator structures, *Annales Univ. Sci. Budapest, Sect. Math.* 19, 1976, 141-142, MR58 23231.
7. On the elementary symmetric polynomials of independent random variables (with G. Halasz), *Acta Math. Acad. Sci. Hung.* 28, 1976, 397-401, MR54 11467.
6. A classification of means, *Annales Univ. Sci. Budapest, Sect. Math.* 18, 1975, 129-133, MR54 7723.
5. On the polynomials of independent random variables, *Limit Theorems of Probability Theory*, Coll. Math. Soc. J. Bolyai 11, 1974 (ed. P. Revesz), 365-371, MR52 12056.
4. On the asymptotic properties of diffusion processes, *Annales Univ. Sci. Budapest, Sect. Math.* 17, 1974, 69-71, MR51 14292.
3. On limit distributions, *Annales Univ. Sci. Budapest, Sect. Math.* 16, 1973, 65-68, MR 50 11400.
2. Statistical theory of topological groups, *Progress in Statistics, Coll. Math. Soc. J. Bolyai*, 9, 1973, 789-791, MR 57 17755.

1. On the coefficients of polynomials with negative zeros, *Studia Sci Math. Hung.* 8, 1973, 123-124, MR48 7346.

***PREPRINTS PREPARED FOR PUBLICATION***

1. Before Mathematics: Thales and the Ten Commandments
2. The Mean Paradox of Social Choices (with C. Bennett and C. Holland) (ready for submission)
3. Brownian correlation: CLT for stationary sequences
4. Student's t-test for unimodal distributions (with N. K. Bakirov).
5. E-statistics: the energy of statistical samples.
6. Representations by simple functions of uncorrelated random variables (with T. Mori and G. Petruska).
7. 1/2 of a coin: unlikely probabilities.
8. Derivatives of rational powers of matrices with statistical applications (with N. K. Bakirov).
9. On conditional distributions of  $X+Y$  given  $X-Y$  (with L. Klebanov).
10. Joint characterization of normal and exponential distributions (with L. Klebanov).

***DISSERATATIONS, LECTURE NOTES***

1. A valoszinusegsegzamitas alapjai, Master Thesis, ELTE, Budapest, 1970.
2. Invariant measures, Ph.D. Thesis, ELTE, Budapest, 1971.
3. Valoszinusegi valtozok polinomjai, diffuzios folyamatok tiltott allapotokkal es invariants mertekek, Kandidatusi ertekezes, Hungarian Academy of Sciences, Budapest, 1977.

4. Algebrai valoszinusegszamitas, D. Sc., Hungarian Academy of Sciences, Budapest, 1986.
5. Regresszios modellek (Bognar Katalinnal), Bolyai J. Mat. Tars. jegyzete, Bp., 1984.
6. Valoszinusegszamitas es matematikai statisztika (tobb tarsszerzovel), Tankonyvkiado, Bp. 1995.
7. Matematika epiteszmernokoknek, BME, 1995.
8. Differencialegyenletek es differentialgeometria (Zsigri Gaborral), BME, 1995.
9. Sztochasztika (Zsigri Gaborral) , BME, 1996.

***PAPERS (in Hungarian)***

1. Matematika es muveszet, Delta, 1975/6, 19-22.
2. A szerencsejatekok tudomanya, Elet es Tudomany, 1975.8.1., 1453-8.
3. Az ido iranya, Delta, 1976/3, 8-11.
4. Matematikai katasztrofak, Delta, 1978/1, 8-11.
5. Nok a matematikaban (Pesthy Monikaval), Magyar Nemzet, 1978.3.8.
6. Csaladnevek matematikaja, IPM, 1978/3, 92-93.
7. Szimmetriak terben es idoben, Delta, 1978/4, 11-14
8. Valtozo allandok? Delta, 1978/7, 18-22.
9. Rejtozkodo szamnevek (Raj Tamassal), IPM, 1978/8, 10-11.
10. Matematikai "Nobel dij", Termeszet Vilaga, 1978/9, 401-2.
11. Egyetemek a kozepkorban, IPM/9, 22-25.
12. Szamitasok es amitasok, IPM, 1978/12, 44-45.
13. Szabalyos veletlenek, IPM, 1978/12, 44-45.

14. 75 eve szuletett Neumann Janos, Magyar Nemzet, 1978.12.20., 8.
15. A kiszamithato szerencse, Delta, 1979/1, 40-42.
16. A valtozatos vegtelen, Delta, 1979/3, 27-30.
17. Amirol Nobel megfeledkezett, IPM, 1979/4, 26-27.
18. Egy nepszerutlen tudomany nepszeru problemai, IPM, 1979/6, 20-22.
19. A valoszinusegyszamitas legregibb paradoxonai, Termeszet Vilaga, 1979/8, 352-356.
20. Tortdimenziok a makro-es mikrovilagban, Delta, 1979/10, 784-788.
21. A matematika elso valsaga, Magyar Tudomany, 1979/10, 18-21.
22. Atomok a szamvilagban, Delta, 1979/11, 32-35.
23. Sakkozo szamitogepek, Delta, 1979/11, 32-35.
24. Tudomanyok hirvivoi, IPM, 1979/11, 125-127.
25. Fields-dijasok, Termeszet Vilaga, 1980/1, 23-27.
26. Magyar felfedezes a matematikai kalendariumban, Delta, 1980/1, 19-22.
27. Iskolaalapitok - Riesz Frigyes es Fejer Lipot szaz eve szuletett, Magyar Hirlap, 1980.1.27.,11.
28. Vegtelen kod, IPM, 1980/2, 8-10.
29. Csaladfak a geometriaban, Delta, 1980/3, 27-30.
30. Csillagistenek alkonya, IPM, 1980/3, 4-6.
31. Miert misztikus szam a 7? Termeszet Vilaga, 1980/4, 185-187.
32. Celratoro algoritmusok, Delta, 1980/5, 18-21.
33. A hiányzo lancszem: a monster, Delta, 1981/4, 38-40.
34. Csak szazan ertik? IPM, 1981/6, 13.
35. Terformak uj formaban, Delta, 1981/6, 36-38.

36. A 7 misztikumarol, Scheiber Sandor Evkonyve, 1981-82, 482-7.
36. Mire jok a Fibonacci-szamok? Delta, 1982/4, 3234.
37. A megfejthetetlen titkosiras, Delta, 1982/10, 27-29.
38. A szavazasok matematikaja, Termeszet Vilaga, 1982/8, 371-372.
39. Az elmosodottsag matematikaja, Delta, 1982/10, 27-19.
40. A kolmogorovi veletlen, Magyar Nemzet, 1982.11.23., 4.
41. A valoszinusegyszamitas legregibb paradoxonai, Scheiber Sandor Evkonyve, 1983-84.
42. A tojas geometriaja, Delta, 1983/2, 42-44.
43. Negydimenzios hallucinacio, Delta, 1983/5, 14-15.
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