

RESEARCH PUBLICATIONS OTHER THAN BOOKS

1951

- 1 **WWW AS & K FE4**. M 1951. Adaptation d'un message sur la ligne de transmission, I & II. *Comptes Rendus* (Paris): **232**, 1638-1640 & 2003-2005.

1952

- 2 M 1952. Sur la notion générale d'information et la durée intrinsèque d'une stratégie. *Comptes Rendus* (Paris): **234**, 1346- 1348.
- 3 M 1952. Les démons de Maxwell. *Comptes Rendus* (Paris): **234**, 1842-1844.

1953

- 4 M 1953t. Contribution à la théorie mathématique des jeux de communication (Ph.D. Thesis). *Publications de l'Institut de Statistique de l'Université de Paris*: **2**, 1-124.
- 5 M 1953i. An informational theory of the statistical structure of language. *Communication Theory, the Second London Symposium*. Edited by Willis Jackson. London: Butterworth; New York: Academic, 486-504.

1954

- 6 M 1954w. Structure formelle des textes et communication (deux études). *Word*: **10**, 1-27.
- Corrections: *Word*: **11**, 1955, 424.
 - English translation by Anthony G. Oettinger: *The formal structure of texts and communication (two studies)*: Cambridge, MA, Harvard Computation Laboratory, 1955.
 - Czech translation: Komunikace a formální struktura textu. *Teorie informace a jazykoveda (=Information theory and linguistics)*, an anthology edited by Lubomir Dolozel. Prague: Press of the Czechoslovak Academy of Sciences, 1964, 130-150.
 - Excerpt: *Le Langage*, anthologie dirigée par Robert Pagès. Paris: Hachette, 1959, 55-57.
 - Summary: Information sans interprétation dans la description des langues réelles. *Synthèse*: **11**, 1959, 160-161.
- 7 M 1954. Simple games of strategy occurring in communication through natural languages. *Transactions of the IRE Professional Group on Information Theory*: **3**, 124-137.
- French translation: *Jeux de stratégie se présentant dans la communication au moyen des langues naturelles*. Centre National des Télécommunications, Traduction **1049**, 1955.
 - Abstract: Statistical macro-linguistics. *Supplemento di Nuovo Cimento*: **13**, 1959, 518-520.

1955

- 8 M 1955b. On recurrent noise limiting coding. *Information Networks, the Brooklyn Polytechnic Institute Symposium*. Edited by Ernst Weber. New York: Interscience, 205-221.
- Russian translation: O rekurrentnom kodirovanii, ogranichivayuschem vliyanie pomekh. *Teoriia informatsii (=Information Theory)*. Edited by W. Siforof. Moscow: 1957, 138-157.
- 9 M 1955. *Diagnostic en l'absence de bruit*. Institut de Statistique de Université de Paris. 1-73 (booklet).
- 10 M 1955t. Théorie de la précorrection des erreurs de transmission. *Annales des Télécommunications*: **10**, 122-134.

1956

- 11 **WWW AS.** M 1956c. La distribution de Willis-Yule, relative au nombre d'espèces dans les genres taxonomiques. *Comptes Rendus* (Paris): **242**, 2223-2225.
- 12 M 1956w. On the language of taxonomy: an outline of a thermo-statistical theory of systems of categories, with Willis (natural) structure. *Information Theory, the Third London Symposium*. Edited by Colin Cherry. London: Butterworth; New York: Academic, 135-145.
- 13 M 1956t. Exhaustivité de l'énergie d'un système, pour l'estimation de sa température. *Comptes Rendus* (Paris): **243**, 1835-1837.
- 14 M 1956m. A purely phenomenological theory of statistical thermodynamics: canonical ensembles. *IRE Transactions on Information Theory*: **112**, 190-203.

1957

- 15 M 1957b. Note on a law of J. Berry and on insistence stress. *Information and Control*: **1**, 76-81.
• Russian translation: Zakon Berri i predelenie "udareniya". *Teoriia informatsii (=Information Theory)*. Edited by W. Siforof. Moscow: 1957, 248-254.
- 16 M 1957p. Théorie *mathématique de la loi d'Estoup-Zipf*. Institut de Statistique de l'Université de Paris, 1-80 (booklet).
- 17 M 1957t. *Application of thermodynamical methods in communication theory and in econometrics*. Institut Mathématique de l'Université de Lille.

1958

- 18 M 1958p. Les lois statistiques macroscopiques du comportement (rôle de la loi de Gauss et des lois de Paul Lévy). *Psychologie Française*: **3**, 237-249.

1959

- 19 M 1959s. A note on a class of skew distribution functions: Analysis and critique of a paper by H. A. Simon. *Information and Control*: **2**, 90-99.
- 20 **WWW AS SFE.** M 1959p. Variables et processus stochastiques de Pareto-Lévy et la répartition des revenus, I & II. *Comptes Rendus* (Paris): **249**, 613-615 & 2153-2155.
- 21 **WWW AS** M 1959g. Ensembles grand canoniques de Gibbs; justification de leur unicité basée sur la divisibilité infinie de leur énergie aléatoire. *Comptes Rendus* (Paris): **249**, 1464-1466.

1960

- 22 M 1960. Processus stochastiques à loi stable positive, permanents, markoviens et stationnaires (non additifs). *Comptes Rendus* (Paris): **250**, 451-453.
- 23 **E10.** M 1960i. The Pareto-Lévy law and the distribution of income. *International Economic Review*: **1**, 79-106.
• Preliminary report: *Au sujet de la distribution de Pareto, relative à la distribution des revenus*. Faculté des Sciences de l'Université de Genève, 1956.
• Abbreviated reprint: *Mathematics and Social Science I: Proceedings of UNESCO Seminars* (Menthon-Saint-Bernard, 1960 and Gösing, 1962), compiled by Saul Sternberg and others. The Hague: Mouton & Co., 1965, 217-239.
• Privately circulated supplement: *Additional note on the distribution of income*.

- Reprint: *Vilfredo Pareto: Critical Assessments*, Edited by John C. Wood & Michael McLure London: Routledge, 1999, **IV**, 155-182.
- Reprint: *Income Distribution*, Edited by Michael Sattinger. *The International Library of Critical Writings in Economics*; Series Editor: Mark Blaug, Edward Elgar, 2000 Cheltenham, UK.

1961

- 24 M 1961b. On the theory of word frequencies and on related markovian models of discourse. *Structure of Language and its Mathematical Aspects* (New York, 1960). Edited by Roman Jakobson (Symposia in Applied Mathematics **XII**). Providence, R.I.: American Mathematical Society, 190-219.
- Abbreviated reprint: *Mathematics and Social Science* (Menthon-Saint Bernard, 1960 & Gösing, 1962) 1965, 241-256.
 - Summary: Discussion of a paper by Prof. N. F. Ramsey. *Symposium on Critical Review of Thermodynamics* (Pittsburgh PA), Edited by Edward B. Stuart, Benjamin Gal-Or & Alan J. Brainard. Baltimore, MD, Mono Book Corp. 1970, 230-232.
- 25 M 1961s. Final note on a class of skew distribution functions (with a post-script). *Information and Control*: **4** 198-216 & 300-304.
- 26 **E11**. M 1961e. Stable Paretian random functions and the multiplicative variation of income. *Econometrica*: **29**, 517-543.
- Reprint: *Vilfredo Pareto: Critical Assessments*, Edited by John C. Wood & Michael McLure. London: Routledge, 1999, **IV**, 183-209.

1962

- 27 **E12**. M 1962q. Paretian distributions and income maximization. *Quarterly Journal of Economics*; **76**, 57-85.
- Reprint: *Vilfredo Pareto: Critical Assessments*, Edited by John C. Wood & Michael McLure. London: Routledge, 1999, **IV**, 210-240.
- 28 **WWW AS FE9**. M 1962c. Sur certains prix spéculatifs: faits empiriques et modèle basé sur les processus stables additifs de Paul Lévy. *Comptes Rendus* (Paris): **254**, 3968-3970.
- 29 M 1962t. The role of sufficiency and estimation in thermodynamics. *The Annals of Mathematical Statistics*: **33**, 1021-1038.
- Reprint: *Thermodynamics, a Unifying Science*. Edited by George N. Hatsopoulos & Joseph H. Keenan. Cambridge, MA: MIT Department of Mechanical Engineering, 1964.

1963

- 30 Jay M. BERGER & M 1963. **N6**. A new model for the clustering of errors on telephone circuits, *IBM Journal of Research And Development*: **7**, 224-236.
- 31 **E10**. M 1963i. The stable Paretian income distribution, when the apparent exponent is near two. *International Economic Review*: **4**, 111-115.
- Reprint: *Vilfredo Pareto: Critical Assessments*, Edited by John C. Wood & Michael McLure. London: Routledge, 1999, **IV**, 236-240.
- 32 **WWW K & P. E3**. M 1963e. New methods in statistical economics. *The Journal of Political Economy*: **71**, 421-440.
- Reprint: *Bulletin of the International Statistical Institute, 34th Session, Ottawa*: **40**, (book 2), 1964, 699-720.
 - Reprint: *Vilfredo Pareto: Critical Assessments*, Edited by John C. Wood & Michael McLure. London: Routledge, 1999, **IV**, 241-263.

- Reprint: *Forecasting Financial Markets*. Edited by Terence C. Mills. *The International Library of Critical Writings in Economics*. Series Editor: Mark Blaug. Cheltenham, UK: Edward Elgar, 2002.

- 33 **WWW K & P. E14.** M 1963b. The variation of certain speculative prices. *The Journal of Business of the University of Chicago*: **36**, 394-419.
- Photographic reprint followed by discussions by Eugene F. Fama and Paul H. Cootner: *The Random Character of Stock Market Prices*. Edited by Paul H. Cootner. Cambridge, MA: MIT Press, 1964, 297-337.
 - **E14.** Separately published abstract: *Econometrica*: **31**, 1963, 757-758.
 - **E14.** Addendum: Linear regression with non-normal error terms: a comment. *Review of Economics and Statistics*: **53**, 1971, 205.
 - Addendum: Correction of an error in "The variation of certain speculative prices". *Journal of Business of the University of Chicago*: **45**, 1972, 542-543.
 - Citation Classic. *Current Contents*: **14**, 1982, 20.
 - Photographic reprint: *Futures Markets*. Three volumes edited by A. G. Malliaris. Cheltenham UK: Edward Elgar, 1996. **2**, 173-198.
 - Reprint: *Classic Futures: Lessons from the Past for the Electronic Age*. Edited by Lester Telser. London: Risk Books. 2000, 649-683.

1964

- 34 M 1964t. On the derivation of statistical thermodynamics from purely phenomenological principles. *Journal of Mathematical Physics*: **5**, 164-171.
- Reprint: *Thermodynamics, a Unifying Science*. Edited by George N. Hatsopoulos & Joseph H. Keenan. Cambridge, MA: MIT Department of Mechanical Engineering, 1964.
 - Summary: Discussion of a paper by Prof. R. E. Collins. *Symposium on Critical Review of Thermodynamics* (Pittsburgh PA). Edited by Edward B. Stuart, Benjamin Gal-Or & Alan J. Brainard. Baltimore, MD: Mono Book Corp., 1970, 32-34.
- 35 George L. GERSTEIN & M 1964. Random walk models for the spike activity of a single neuron. *The Biophysical Journal*: **4**, 41-68.
- 36 **E8.** M 1964o. Random walks, fire damage amount, and other Paretian risk phenomena. *Operations Research*: **12**, 582-585.

1965

- 37 **N7.** M 1965c. Self-similar error clusters in communications systems and the concept of conditional stationarity. *IEEE Transactions on Communications Technology*: **COM-13**, 71-90.
- 38 **WWW AS FEP. E'.** M 1965h. Une classe de processus stochastiques homothétiques à soi. Application à la loi climatologique de H. E. Hurst. *Comptes Rendus (Paris)*: **260**, 3274-3277.
- **H9.** English translation.
- 39 M 1965s. Leo Szilard and unique decipherability. *IEEE Transactions on Information Theory*: **IT-11**, 455-456.
- 40 **WWW AS.** M 1965. Ensembles de multiplicité aléatoires (Jean-Pierre Kahane & M). *Comptes Rendus (Paris)*: **262**, 3931-3933.
- **N11.** English translation.
- 41 M 1965m. Very long-tailed probability distributions and the empirical distribution of city sizes. *Mathematical Explorations in Behavioral Science* (Cambria Pines CA, 1964). Edited by Fred Massarik & Philburn Ratoosh. Homewood, Ill.: R. D. Irwin, 322-332.
- Expanded version: *Mathematics and Social Sciences* (Menthon-Saint-Bernard, 1960 and Gsing, 1962). The Hague: Mouton 1965, 257-278.

- 42 M 1965z. Information theory and psycholinguistics. *Scientific Psychology: Principles and Approaches*. Edited by Benjamin B. Wolman & Ernst Nagel. New York: Basic Books, 550-562.
- Reprint with new appendices: Information theory and psycholinguistics: a theory of word frequencies. *Readings in Mathematical Social Science*. Edited by Paul Lazarfeld and Neil Henry. Chicago: Science Research Associates, 1966 (hard cover); Cambridge, MA, MIT Press, 1968 (paperback), 350-368.
 - Reprint: Information theory and psycholinguistics. *Language, selected readings*. Edited by R. C. Oldfield & J. C. Marshall. London: Penguin Books, 1968, 263-275.
 - Russian translation: Teoria informatsii i psikholingvistika: Teoria častov slov. *Matematiskie metody v sotsial'nykh naukakh*. Moskva 1973.
 - **WWW. F. FE4**. French translation: Aléas du discours.

1966

- 43 **WWW. P. E19**. M 1966b. Forecasts of future prices, unbiased markets and "martingale" models. *The Journal of Business of the University of Chicago*: **39**, 242-255.
- Reprint: *Forecasting Financial Markets*. Edited by Terence C. Mills. *The International Library of Critical Writings in Economics*. Series Editor: Mark Blaug. Cheltenham, UK: Edward Elgar, 2002.
- 44 M 1966r. Nouveaux modèles de la variation des prix (cycles lents et changements instantanés). *Cahiers du Séminaire d'Econométrie*: **9**, 53-66.
- Abstract: Stochastic models of the variation of prices. *Working Conference on Stochastic Processes* (Santa Barbara CA, 1967). Edited by Mark Kac & Gordon McDonald.

1967

- 45 **N10**. M 1967b. Sporadic random functions and conditional spectral analysis; self-similar examples and limits. *Proceedings of the Fifth (1965) Berkeley Symposium on Mathematical Statistics and Probability*. Edited by Lucien LeCam & Jerzy Neyman. Berkeley, California: University of California Press, **3**, 155-179.
- 46 **N9**. M 1967i. Some noises with $1/f$ spectrum, a bridge between direct current and white noise. *IEEE Transactions on Information Theory*: **IT-13**, 289-298.
- Abstract: Electro-magnetic turbulence in communication systems. *Proceedings of the International Conference on Microwaves, Circuit Theory and Information Theory* (Tokyo, 1964). Edited by K. Morita. 1964, **3**, 43-53.
 - Abstract: Time varying channels, $1/f$ noises and the infrared catastrophe. Or: Why does the low frequency energy sometimes seem infinite. *Convention Record of the First IEEE Communications Convention*, 1965.
 - Abstract: Sporadic processes and their application to noise theory. *Working Conference on Stochastic Processes* (Santa Barbara CA), 1967. Edited by Mark Kac & Gordon McDonald.
- 47 **WWW K**. M 1967s. How long is the coast of Britain? Statistical self-similarity and fractional dimension. *Science*: **156**, 636-638.
- 48 **WWW P. E15**. M 1967j. The variation of some other speculative prices. *The Journal of Business of the University of Chicago*: **40**, 393-413.
- Reprint: *Classic Futures: Lessons from the Past for the Electronic Age*. Edited by Lester Telser. London: Risk Books. 2000, 685-708.
- 49 **N12**. M 1967k. Sporadic turbulence. *Proceedings of the International Symposium on Boundary Layers and Turbulence including Geophysical Applications*. Supplement to *The Physics of Fluids*: **10**, S302-3.
- Announcement: Uniformly self-similar sporadic turbulence. *Notes on the Summer Study Program in Geophysical Fluid Mechanics* (Woods Hole Oceanographical Institute), 1965, 118-121.

- 50 **WWW. E21.** M & Howard M. TAYLOR 1967. On the distribution of stock price differences. *Operations Research*: **15**, 1057-1062.
 • Variant: Some aspects of the random-walk model of stock market prices: Comment. *International Economic Review*: **9**, 1968, 258-259.

1968

- 51 **H10.** M & James R. WALLIS 1968. Noah, Joseph and operational hydrology. *Water Resources Research*: **4**, 909-918.
 • Illustrated variant: Self-similar synthetic hydrology (James R. Wallis & M). *Symposium on the Use of Analog and Digital Computers in Hydrology* (Tucson AZ, 1968). Publication 81 of the *International Association of Scientific Hydrology*: **2**, 1968, 738-755.
 • Elaboration in reply to a question: Reply to Professor Quimpo (M & James R. Wallis). *Discussion of the 1968 Tucson Symposium, Bulletin of the International Association of Scientific Hydrology*: **14**, 1969, 58-60.
 • Abstract: Self-similar synthetic hydrology (M & James R. Wallis). *Summaries of Contributed Papers, European Meetings of IMS, TIMS, ES and IASPS*, Amsterdam: Mathematical Center, 1968.
 • Elaboration in reply to a published comment: Reply to Mr. Alexander (M & James R. Wallis). *Water Resources Research*: **5**, 1969, 917-920.
 • Elaboration in reply to a published comment: Comment on "Stochastic models in hydrology" by A.E. Scheidegger. *Water Resources Research*: **6**, 1970, 1791.
 • Elaboration in reply to an oral comment: Notes on the definition and the stationarity of fractional Gaussian noise. *Journal of Hydrology*: **30**, 1976, 407-409.
- 52 **WWW K. H11.** M & John W. VAN NESS 1968. Fractional Brownian motions, fractional noises and applications. *SIAM Review*: **10**, 422-437.
 • Critique of a would-be improvement: On an eigenfunction expansion and on fractional Brownian motions. *Lettere al Nuovo Cimento*: **33**, 1982, 549-550.

1969

- 53 **WWW M. N13.** M 1969b. On intermittent free turbulence. *Turbulence of Fluids and Plasmas*. Polytechnic Institute of Brooklyn, April 1968. Edited by Ernst Weber. New York: Interscience.
 • The geometry of turbulence. *Conference on Prospects for Theoretical Turbulence Research*, N. C. A. R., Boulder, Colo., June 14-20, 1974, 9-12.
- 54 M 1969e. Long-run linearity, locally Gaussian processes, H-spectra and infinite variances. *International Economic Review*: **10**, 82-111.
 • Abstract: Intermittency and periodicity, and the problem of long cycles. *Econometrica*: **34**, 1966 (Supplement) 152-153.
- 55 **H12,13,14.** M & James R. WALLIS 1969. Computer experiments with fractional Gaussian noises. *Water Resources Research*: **5**, 228-267.
- 56 **H27.** M & James R. WALLIS 1969. Some long-run properties of geophysical records. *Water Resources Research*: **5**, 321-340.
 • Edited reprint: *Fractal Geometry and its Use in the Earth Sciences*. Edited by Christopher C. Barton & Paul R. LaPointe. New York: Plenum, 1994, pp. 41-64.
- 57 **WWW K. H25.** M & James R. WALLIS 1969. Robustness of the rescaled range R/S in the measurement of noncyclic long-run statistical dependence. *Water Resources Research*: **5**, 967-988.

1970

- 58 **H28.** M & Keith MCCAMY 1970. On the secular pole motion and the Chandler wobble. *The Geophysical Journal*, **21**: 217-232.
 • Abstract: On the secular pole motion and the Chandler wobble (M & Keith McCamy). *Eos, Transactions of the American Geophysical Union*: **57**, 1970, 266.
- 59 **WWW P.** M 1970e. Statistical dependence in prices and interest rates. *Papers of the Second World Congress of the Econometric Society*, Cambridge, England.
 • Summary: Analysis of long-run dependence in time series: the *R/S* technique. *Fiftieth Annual Report of the National Bureau of Economic Research*, 1970, 107-108.
 • Abstract progress report: Long-run interdependence in price records and other economic time series. *Econometrica*: **38**, 1970, 122-123.
 • Reprint of Part I: Statistical dependence in prices and interest rates. *Fifty-first Annual Report of the National Bureau of Economic Research*, 1971, 141-142.
 • Revised Part II: Analysis of non-periodic long-run dependence using the robust statistic *R/S*. *Proceedings of the 1971 Princeton Conference on Information Sciences and Systems*, 155-159.
 • Analysis of long-run dependence in economics: the *R/S* technique. *Econometrica*: **39**, 1971 (July Supplement), 68-69.

1971

- 60 **H15.** M 1971f. A fast fractional Gaussian noise generator. *Water Resources Research*: **7**, 543-553.
- 61 **E20.** M 1971e. When can price be arbitrated efficiently? A limit to the validity of the random-walk and martingale models. *Review of Economics and Statistics*: **53**, 225-236.

1972

- 62 M 1972z. Renewal sets and random cutouts. *Zeitschrift für Wahrscheinlichkeitstheorie*: **2**, 145-157.
- 63 M 1972d. On Dvoretzky coverings for the circle. *Zeitschrift für Wahrscheinlichkeitstheorie*: **22**, 158-160.
- 64 **WWW K & (SR). N14.** M 1972i. Possible refinement of the lognormal hypothesis concerning the distribution of energy dissipation in intermittent turbulence. *Statistical Models and Turbulence* (La Jolla, California). (Lecture Notes in Physics **12**). Edited by Murray Rosenblatt & Charles Van Atta. New York: Springer, 333-351.
- 65 M 1972c. Statistical methodology for non-periodic cycles: from the covariance to *R/S* analysis. *Annals of Economic and Social Measurement*: **1**, 257-288.
 • Advance summary: Comment on "Application of linear random models to four annual streamflow series" by Carlson, MacCormick, & Watts. *Water Resources Research*: **7**, 1971, 1360-1362.
- 66 **H16.** M 1972w. Broken line process derived as an approximation to fractional noise. *Water Resources Research*: **8**, 1354-1356.

1973

- 67 **H29.** Frederick J. DAMERAU & M 1973. Tests of the degree of word clustering in samples of written English. *Linguistics*: **102**, 58-75.
- 68 **WWW. P.** M 1973c. Comments on "A subordinated stochastic process model with finite variance for speculative prices." by Peter K. Clark. *Econometrica*: **41**, 157-160.

- 69 M 1973f. Formes nouvelles du hasard dans les sciences. *Économie Appliquée*: **26**, 307-319.
 • Expanded version: Du hasard bénin au hasard sauvage. *Le hasard (Dossier Pour la Science)*
 Paris: Belin, 1996, 12-17.

1974

- 70 **WWW K. N15.** M 1974f. Intermittent turbulence in self-similar cascades; divergence of high moments and dimension of the carrier. *Journal of Fluid Mechanics*: **62**, 331-358.
 • Excerpt: *The Wolf Prizes for Physics*. Edited by David J. Thouless. Singapore, World Scientific, 2005.
- 71 **WWW AS & SR.** M 1974c. Multiplications aléatoires itérées et distributions invariantes par moyenne pondérée aléatoire, I & II. *Comptes Rendus (Paris)*: **278A**, 289-292 & 355-358.
 • **N16.** English translations.
- 72 **N8.** M 1974d. A population birth and mutation process, I: Explicit distributions for the number of mutants in an old culture of bacteria. *Journal of Applied Probability*: **11**, 437-444.
 • Complement: A population birth and mutation process, II: Explanations, figures and numerical illustrations. Privately distributed memorandum.

1975

- 73 **H26.** M 1975z. Limit theorems on the self-normalized range for weakly and strongly dependent processes. *Zeitschrift für Wahrscheinlichkeitstheorie*: **31**, 271-285.
- 74 **WWW AS.** M 1975b. Fonctions aléatoires pluri-temporelles: approximation poissonienne du cas brownien et généralisations. *Comptes Rendus (Paris)*: **280A**, 1075-1078.
 • **H17.** English translations.
- 75 **WWW K. H18.** M 1975f. On the geometry of homogeneous turbulence, with stress on the fractal dimension of the isosurfaces of scalars. *Journal of Fluid Mechanics*: **72**, 401-416.
- 76 **WWW K. H19.** M 1975w. Stochastic models for the Earth's relief, the shape and the fractal dimension of the coastlines, and the number-area rule for islands.
Proceedings of the National Academy of Sciences (USA): **72**, 3825-3828.
- 77 **WWW AS** M 1975u. Sur un modèle décomposable d'Univers hiérarchisé: déduction des corrélations galactiques sur la sphère céleste. *Comptes Rendus (Paris)*: **280A**, 1551-1554.
- 78 **FE 2.2.** M 1975m. Hasards et tourbillons (quatre contes à clef). *Annales des Mines*: 61-66.

1976

- 79 **WWW AS.** M 1976c. Géométrie fractale de la turbulence. Dimension de Hausdorff, dispersion et nature des singularités du mouvement des fluides. *Comptes Rendus (Paris)*: **282A**, 119-120.
 • **H19.** English translation.
- 80 **WWW M N18.** M 1976o. Intermittent turbulence and fractal dimension: kurtosis and the spectral exponent $5/3+B$. *Turbulence and Navier Stokes Equations (Orsay, 1975)*. Edited by Roger Temam (Lecture Notes in Mathematics **565**). New York: Springer, 121-145.
 • Brief variant: Comment on coherent structures: *Proceedings of the IUTAM Symposium on Turbulence and Chaotic Phenomena in Fluids*. Edited by Tomomasa Tatsumi, Amsterdam: North-Holland, 1984, 207-208.

1977

- 81 **WWW M.** 1977b. Fractals and turbulence: attractors and dispersion. *Seminar on Turbulence, Berkeley 1976*. Organized by Alexandre Chorin, Jerald Marsden & Stephen Smale. Edited by P. Bernard & T. Ratiu (Lecture Notes in Mathematics **615**). New York: Springer, 83-93.
- Russian translation: *Strannyye Atraktory (=Strange Attractors)*. Collection of reprints edited by Yakov G. Sinai & L. P. Silnikova. Moscow: Mir Publishers, 1981, 47-57.
 - Elaboration of some points: Fractals, attractors, and the fractal dimension. *Bifurcation Theory and Applications in Scientific Disciplines* (New York, 1977). Edited by Okan Gurel & Otto Rossler. *Annals of the New York Academy of Sciences*: **316**, 1979, 463-464.

1978

- 82 M 1978b. The fractal geometry of trees and other natural phenomena. *Geometrical Probability and Biological Structures: Buffon's 100th Anniversary Conference (Paris, 1977)*. Edited by Roger Miles & Jean Serra (Lecture Notes in Biomathematics **23**). New York: Springer, 235-249.
- 83 **WWW M M** 1978h. Geometric facets of statistical physics: scaling and fractals. *Statistical Physics 13, International IUPAP Conference* (Haifa, 1977). Edited by D. Cabib, C.G. Kuper & I. Riess. *Annals of the Israel Physical Society*. Bristol: Adam Hilger. **2** (1), 225-233.
- 84 M 1978r. Les objets fractals. *La Recherche*: **9**, 85, 1-13.
- Excerpt: Les facettes fractales de l'anatomie. *La morphogenèse, de la biologie aux mathématiques*. Textes réunis par Yves Bouligand. Paris: Doin-Maloine, 1980, 83-89.
 - Frontispiece with caption: *Impact of Science on Technology* (UNESCO): **29**, July 1979.
- 85 **WWW AS.** M 1978c. Colliers aléatoires et une alternative aux promenades au hasard sans boucle: les cordonnets discrets et fractals. *Comptes Rendus* (Paris): **286**, 933-936.

1979

- 86 **WWW AS.** M 1979u. Corrélations et texture dans un nouveau modèle d'Univers hiérarchisé, basé sur les ensembles trémas. *Comptes Rendus* (Paris): **288**, 81-83.
- 87 M & Murad S. TAQQU 1979. Robust *R/S* analysis of long-run serial correlation. *Bulletin of the International Statistical Institute: 42nd Session, Manila*, **46** (book 2), 79-104.

1980

- 88 Yuval GEFEN, M, & Amnon AHARONY 1980. Critical phenomena on fractals. *Physical Review Letters*: **45**, 855-858.
- Abstract: Ising models on fractal lattice (Yuval Gefen, M, & Amnon Aharony). *Proceedings of the XIVth International Conference on Thermodynamics and Statistical Mechanics (Statphys 14)*, August 1980, Edmonton, Alberta, Canada.
 - Variant: Critical phenomena and fractals with dimensionality near 1 (Yuval Gefen, M, & Amnon Aharony). *Physics in One Dimension*. Edited by J. Bernasconi & T. Schneider, New York: Springer, 1980.
- 89 **WWW K. C3.** M 1980n. Fractal aspects of the iteration of $z \rightarrow \lambda z (1-z)$ for complex λ and z . *Non-Linear Dynamics* (New York, 1979). Edited by Robert H. G. Helleman. *Annals of the New York Academy of Sciences*: **357**, 249-259.
- Abstract: Non-linear random dynamics and fractal attractors. *Proceedings of the XIVth International Conference on Thermodynamics and Statistical Mechanics (Statphys 14)*, August 1980, Edmonton, Alberta, Canada.
 - Letter to the Editor. *Scientific American*: July 1982, 8.
 - Excerpt: A fractal attractor, and why it may matter. *Physics as Natural Philosophy: A Festschrift for Laszlo Tisza*. Edited by Herman Feshbach & Abner Shimony, Cambridge, MA: MIT Press, 1982, front jacket and pp. 3-6.

- Excerpt: *The Wolf Prizes for Physics*. Edited by David J. Thouless. Singapore: World Scientific, 2005.

1981

- 90 M 1981s. Scalebound or scaling shapes: A useful distinction in the visual arts and in the natural sciences. *Leonardo*: **14**, 1981, 45-47.
- 91 Yuval GEFEN, Amnon AHARONY, M, & Scott KIRKPATRICK 1981. Solvable fractal family, and its possible relation to the backbone at percolation, *Physical Review Letters*: **47**, 1771-1774.
 • Early version: Percolation, critical phenomena and fractals (Yuval Gefen, Amnon Aharony, M, & Scott Kirkpatrick). *Disordered Systems and Localization* (Roma, 1981, Lecture Notes in Physics **149**). Edited by C. Castellani, C. DiCastro & L. Peliti. New York: Springer, 1981, 56-58.

1982

- 92 M 1982f. Comments on computer rendering of fractal stochastic models. *Communications of the Association for Computing Machinery*: **25**, cover and pp. 581-584.
 • Reprint: **Book d**.

1983

- 93 **C18**. M 1983i. Fractal curves osculated by sigma-discs, and construction of self-inverse limit sets. *Mathematical Intelligencer*: **5** (2), Front and back covers and pp. 9-17.
 • Excerpt: Self-inverse fractals and Kleinian groups. *Mathematics Calendar* for 1981, New York: Springer, 1980.
- 94 Yuval GEFEN, Yigal MEIR, M, & Amnon AHARONY 1983. Geometric implementation of hypercubic lattices with noninteger dimensionality, using low lacunarity fractal lattices. *Physical Review Letters*: **50**, 145-148.
 • Reprint: *The Wolf Prizes for Physics*. Edited by David J. Thouless. Singapore: World Scientific, 2005.
- 95 James A. GIVEN & M 1983. Diffusion on fractal lattices and the fractal Einstein relation. *Journal of Physics*: **A16**, L565-569.
 • Elaboration: Comment on transport processes on fractal structures (James A. Given and M.) *Journal of Physics*: **A17**, 1984, 1937-1939.
- 96 **C5**. M 1983p. On the quadratic mapping $z \rightarrow z^2 - \mu$ for complex μ and z : the fractal structure of its M -set, and scaling. *Physica*: **D7**, 1983, 224-239.
 • Reprint in *Order in Chaos*. Edited by David Campbell & Harvey Rose, Amsterdam: North-Holland, 1983.
- 97 Jean VOLDMAN, M, Lee W. HOEVEL, Joshua KNIGHT, & Philip ROSENFELD 1983. Fractal nature of software-cache interaction. *IBM Journal of Research and Development*: **27**, 164-170.
 • Reprint in *CMG Transactions*: **88**, 55-60. Westmont, IL: Computer Measurement Group.
- 98 Yuval GEFEN, Amnon AHARONY, & M 1983. Phase transitions on fractals: I. Quasi-linear lattices. *Journal of Physics*: **A16**, 1267-1278.

1984

- 99 Yuval GEFEN, Amnon AHARONY, M, & Yonathan SHAPIR 1984. Phase transitions on fractals: II. Sierpinski gaskets. *Journal of Physics*: **A17**, 435-444.

- 100 Yuval GEFEN, Amnon AHARONY, & M 1984. Phase transitions on fractals: III. Infinitely ramified lattices. *Journal of Physics*: **A17**, 1277-1289.
- 101 M, Dann E. PASSOJA, & Alvin J. PAULLAY 1984. The fractal character of the fracture surfaces of metals. *Nature*: **308**, 721-722.
• Abbreviated text: **Book b**, 7-9.
- 102 **WWW M M** 1984e. Fractals in physics: squig clusters, diffusions, fractal measures and the unicity of fractal dimension. *Statistical Physics 15, International IUPAP Conference* (Edinburgh, 1983). Edited by David Wallace & Alistair Bruce. *Journal of Statistical Physics*: **34**, 895-930.
• Excerpt: Each fractal set has a unique fractal dimension. *Proceedings of the IUTAM Symposium on Turbulence and Chaotic Phenomena in Fluid* (Kyoto, 1983). Edited by Tomomasa Tatsumi, Amsterdam: North-Holland, 1984, 203-206.
• Illustration: On the aggregative fractals called squigs, which include recursive models of polymers and of percolation clusters. *Kinetics of Aggregation and Gelation* (Athens, Georgia, April 1984). Edited by Fereydoon Family & David P. Landau. Amsterdam: North-Holland, 1984, 5-7.
- 103 M & James A. GIVEN 1984. Physical properties of a new fractal model of percolation clusters. *Physical Review Letters*: **52**, 1853-1856.
- 104 M 1984f. Squig sheets and some other squig fractal constructions, followed by Comment on the equivalence between fracton/spectral dimensionality and the dimensionality of recurrence. *Journal of Statistical Physics*: **36**, 519-545 (= **Book a.**)
- 105 **C13 M** 1984k. On the dynamics of iterated maps VIII: The map $z \rightarrow \mu(z + 1/z)$ from linear to planar chaos, and the measurement of chaos. Edited by Yoshiki Kuramoto, New York: Springer, 32-41. *Chaos and Statistical Methods* (Kyoto Summer Institute, 1983).
- 106 M 1984w. On fractal geometry and a few of the mathematical questions it has raised. *Proceedings of the International Congress of Mathematicians* (Warsaw 1983). Edited by Zbigniew Ciesielski, Warsaw: PWN and Amsterdam: North-Holland, 1661-1675.
• Revised second edition: Unanswered questions raised by fractal geometry. *Physics and Geometry* (Barcelona, 1996). Edited by Sebastià Xambó & David Jou. Barcelona: Institut d'Estudis Catalans, 1999, 161-176.
• **WWW**. Extensively revised third edition: Some mathematical questions arising in fractal geometry. *Development of Mathematics 1950-2000*. Edited by Jean-Paul Pier. Basel: Birkhäuser, 2000, 795-811.
• Revised fourth edition: Topics on fractals in mathematics and physics. *Challenges for the 21st Century; Fundamental Science. Mathematics and Theoretical Physics* (Singapore, 2000). Edited by Louis H. Chen, J. Packer Jesudason, C.H. Lai, C.H. Oh, K.K. Phua, & Eng-Chye Tan. Singapore: World Scientific, 2001, 461-478.
• Revised fifth edition: Selected topics in mathematics, physics, and finance originating in fractal geometry. *Thinking in Patterns: Fractals and Related Phenomena in Nature*. (Fractal 2004, Vancouver CN). Edited by Miroslav Novak. Singapore: World Scientific, 2004, 1-33.

1985

- 107 **C11. M** 1985n. Continuous interpolation of the complex discrete map: $z \rightarrow \lambda z(1 - z)$ and related topics (On the dynamics of iterated maps, IX). *Nobel Foundation Symposium 59 on the Physics of Chaos*. Edited by Nils R. Nilsson, *Physica Scripta*: **T9**, 59-63.
- 108 M, Yuval GEFEN, Amnon AHARONY, & Jacques PEYRIÈRE 1985. Fractals, their transfer matrices and their eigen-dimensional sequences. *Journal of Physics*: **A18**, 335-354.
• Variant: Partial dimensional sequences and percolation (M, Yuval Gefen, Amnon Aharony & Aharon Kapitulnik). *Journal of Statistical Physics*: **36**, 1984, 827-830.

- 109 M 1985. Fractal properties of rain, and a fractal model (Shaun Lovejoy & M).
Tellus: **A 37**, 209-232. • Reprints: **Books d** and **d2**.
- 110 **C6,7,8,9,10**. M 1985g. On the dynamics of iterated maps. Paper III: The individual molecules of the M-set self-similarity properties, the N^{-2} rule, and the $N-2$ conjecture. Paper IV: The notion of "normalized radical" R, and the fractal dimension of the boundary of R. Paper V: Conjecture that the boundary of the M-set has a fractal dimension equal to 2. Paper VI: Conjecture that certain Julia sets include smooth components. Paper VII: Domain-filling ("Peano") sequences of fractal Julia sets, and an intuitive rationale for the Siegel discs. *Chaos, Fractals and Dynamics*. Edited by Pal Fischer & William Smith. New York: Marcel Dekker, 213-253.
- 111 M 1985. Topics on the midpoint displacement technique and its application to model reliefs and coastlines. • Reprint: **Book b**.
- 112 **H21**. M 1985l. Self-affine fractals and fractal dimension. *Physica Scripta*: **32**, 257-260.
• Reprint: *Dynamics of Fractal Surfaces*. Edited by Fereydoon Family & Tamas Vicsek. Singapore: World Scientific, 1991, 11-20. • Shortened reprint: **Book c**, 61-63.

1986

- 113 **WWW K. H22, 23, 24**. M 1986t. Self-affine fractal sets, I: The basic fractal dimensions, II: Length and area measurements, III: Hausdorff dimension anomalies and their implications. *Fractals in Physics* (Trieste, 1985). Edited by Luciano Pietronero & Erio Tosatti, Amsterdam: North-Holland, 3-28.
• Reprint of Part I: *Dynamics of Fractal Surfaces*. Edited by Fereydoon Family & Tamas Vicsek. Singapore: World Scientific, 1991, 21-36.
- 114 **WWW M** 1986. Fractal measures (their infinite moment sequences and dimensions) and multiplicative chaos: early works and open problems. *Dimensions and Entropies in Dynamical Systems* (Pecos River NM, 1985). Edited by Gottfried Mayer-Kress, New York: Springer, 19-27.
• Letter to the Editor: Multifractals and fractals. *Physics Today*: September 1986, 11-12.
• Multifractal measures: **Book g**, 84-91.

1987

- 115 **WWW**. M 1987r. Towards a second stage of indeterminism in science (preceded by historical reflections). *Interdisciplinary Science Reviews*: **12**, 117-127.
• Abstract: The epistemology of chance in certain newer sciences. *International Congress on Logic, Methodology and the Philosophy of Science* (Jerusalem 1964). Abstracts edited by Yehoshua Bar-Hillel, Amsterdam: North-Holland, 1966, 57.

1988

- 116 **C20**. Martin C. GUTZWILLER & M 1988. Invariant multifractal measures in chaotic Hamiltonian systems, and related structures. *Physical Review Letters*: **60**, 673-676.
- 117 **H20**. M 1988p. Fractal landscapes without creases and with rivers. *The Science of Fractal Images*. Edited by Heinz-Otto Peitgen & Dietmar Saupe, New York: Springer, 243-260.
- 118 M 1988c. An introduction to multifractal distribution functions. *Fluctuations and Pattern Formation* (Cargèse, 1988). Edited by H. Eugene Stanley and Nicole Ostrowsky, Dordrecht-Boston: Kluwer, 345-360.
• Shorter version: The principles of multifractal measures. *The Fractal Approach to Heterogeneous Chemistry*. Edited by David Avnir, New York: Wiley, 1989, 45-51.
• Revised version: Multifractal measures for the geophysicist: **Book h**.

1989

- 119 M 1989t. The fractal range of the distribution of galaxies: crossover to homogeneity and multifractals. *Large-scale Structure and Motions in the Universe* (Trieste, 1988). Edited by Fabio Mardirossian, M. Mezzetti & Dennis Sciama, Dordrecht-Boston: Kluwer, 259-279.
- Short version: Fractal large scale structures and crossover to homogeneity. *The Structure of the Universe* (Balatonfüred, Hungary, 1987). Edited by Jean Audouze, Marie-Christine Pelletan, & Alex Szalay. Dordrecht-Boston: Kluwer, 1988, 482-484.
 - Very short version: Galaxy distribution and fractals. *Observational Cosmology: from Galaxies to Galaxy Systems* (Sesto, 1995). Edited by Fabio Mardirossian. *Astrophysical Letters and Communications*: **36**, 1996, 1-5.
- 120 M 1989p. Temperature fluctuations: a well-defined and unavoidable notion. *Physics Today*, 71-73.
- 121 M & Tamas VICSEK 1989. Directed recursive models for fractal growth. *Journal of Physics*: **A22**, L377-L383.
- 122 **WWW M.** M 1989g. Multifractal measures, especially for the geophysicist: *Pure and Applied Geophysics*: **131**, 5-42. Also **Book i**.
- Brief excerpt: *Annual Reviews of Materials Sciences*: **19**, 1989, 514-516.
- 123 **WWW M.** M 1989e. A class of multifractal measures with negative (latent) values for the "dimension" $f(a)$. *Fractals' Physical Origin and Properties* (Erice, 1988). Edited by Luciano Pietronero, New York: Plenum, 3-29.
- Short version: Negative fractal dimensions and multifractals. *Statistical Physics 17, International IUPAP Conference* (Rio de Janeiro, 1989). Edited by Constantino Tsallis, *Physica*: **A163**, 1990, 306-315.
 - Updated short version: Two meanings of multifractality, and the notion of negative fractal dimension. *Chaos/Xaoc: Soviet-American Perspectives on Nonlinear Science* (Woods Hole, 1989). Edited by David K. Campbell. New York: American Institute of Physics, 1990, 79-90.

1990

- 124 **WWW M.** M 1990t. Limit lognormal multifractal measures. *Frontiers of Physics: Landau Memorial Conference* (Tel Aviv, 1988). Edited by E. A. Gotsman et al. New York: Pergamon, 309-340.
- 125 **WWW M.** M 1990d. New "anomalous" multiplicative multifractals: left-sided $f(a)$ and the modeling of DLA. *Condensed Matter Physics, in Honor of Cyril Domb* (Bar Ilan, 1990). *Physica*: **A168**, 95-111.
- 126 **WWW M.** M, Carl J. G. EVERTSZ, & Yoshinari HAYAKAWA 1990. Exactly self-similar "left-sided" multifractal measures. *Physical Review*: **A42**, 1990, 4528-4536.
- Reprint combining 126 and 127: M & Carl J. G. Evertsz. Exactly self-similar multifractals with left-sided $f(a)$. *Fractals and Disordered Systems*. Edited by Armin Bunde & Shlomo Havlin. New York: Springer, 323-346.
- 127 M & Carl J. G. EVERTSZ 1990. The potential distribution around growing fractal clusters, *Nature*: **378** (6296), front cover & pp. 143-145.

1991

- 128 Carl J. G. EVERTSZ, Peter W. JONES, & M 1991. Behavior of the harmonic measure at the bottom of fjords. *Journal of Physics*: **A24**, 1880-1901.

- 129 Carl J. G. EVERTSZ & M 1991n. Steady-state noises in diffusion limited fractal growth. *Europhysics Letters*: **15**, 245-250.
- 130 **WWW M.** M 1991k. Random multifractals: negative dimensions and the resulting limitations of the thermodynamic formalism. *Proceedings of the Royal Society (London)*: **A434**, 79-88. Also in *Turbulence and Stochastic Processes: Kolmogorov's ideas 50 years on*. Edited by Julian C. R. Hunt, O. M. Phillips, & D. Williams, London: The Royal Society.
- 131 Carl J. G. EVERTSZ, M, & François NORMANT 1991f. Fractal aggregates, and the current lines of their electrostatic potential. *In Honor of Michael E. Fisher (Washington, 1991)*. Edited by Eytan Domany & David Jasnow. *Physica*: **A177**, 589-592.
- 132 **WWW M & C22.** M & Carl J. G. EVERTSZ 1991. Multifractality of the harmonic measure on fractal aggregates, and extended self-similarity. *In Honor of Michael E. Fisher (Washington, 1991)*. Edited by Eytan Domany & David Jasnow, *Physica*: **A177**, 386-393.
• Reprint: *Fractales y caos (Valencia, 1992)*. Edited by P. Martinez.

1992

- 133 Carl J. G. EVERTSZ, M, & François NORMANT 1992t. Harmonic measure around linearly self-similar trees. *Journal of Physics*: **A25**, 1781-1797.
• Reprint: *Fractales y caos (Valencia, 1992)*. Edited by P. Martinez.
- 134 Carl J. G. EVERTSZ & M 1992b. Self-similarity of the harmonic measure on DLA. *Complex Systems: fractals, etc. (Trieste, 1991)*. Edited by Giorgio Parisi, Luciano Pietronero, & Miguel Virasoro. *Physica*: **A185**, 77-86.
- 135 Carl J. G. EVERTSZ, M, & Lionel WOOG 1992. Variability of the form and of the harmonic measure for small off-off-lattice diffusion-limited aggregates. *Physical Review*: **A45**, 5798-5804 & 8985-8986.
- 136 **WWW M.** Carl J. G. EVERTSZ & M 1992a. Multifractal measures. *Chaos and Fractals: New Frontiers in Science*, by Heinz-Otto Peitgen, Hartmut Jürgens & Dietmar Saupe. New York: Springer, 849-881.
• Reprint: *Fractales y caos (Valencia, 1992)*. Edited by P. Martinez.
• Stand-alone reprint: *Complexity vs. Simplicity (CCAST, Beijing, 1996)*. Edited by Hai-Cang Ren, Newark, NJ: Gordon and Breach, 1997.
- 137 **WWW M.** M 1992h. Plane DLA is not self-similar; is it a fractal that becomes increasingly compact as it grows? *Fractals and Disordered Systems (Hamburg, 1992)*. Edited by Armin Bunde. *Physica*: **A191**, 95-107.

1993

- 138 **WWW M. C21.** M 1993s. The Minkowski measure and multifractal anomalies in invariant measures of parabolic dynamic systems. *Chaos in Australia (Sydney, 1990)*. Edited by Gavin Brown & Alex Opie. Singapore: World Publishing, 83-94.
• Slightly edited reprint: *Fractals and Disordered Systems. Second edition*. Edited by Armin Bunde & Shlomo Havlin. New York: Springer, 1995, 345-353.
- 139 Dietrich STAUFFER, Amnon AHARONY, & M 1993. Self-similarity of fractals: a random-walk test. *Physica*: **A196**, 1-5.
- 140 M 1993n. A fractal's lacunarity, and how it can be tuned and measured. *Fractals in Biology and Medicine (Ascona, 1993)*. Edited by Theo F. Nonnenmacher, Gabriele A. Losa & Ewald R. Weibel. Basel and Boston: Birkhäuser, 8-21.

1994

- 141 Iddo YEKUTIELI, M, & Henry KAUFMAN 1994. Self-similarity of the branching structure in very large DLA clusters and other branching fractals. *Journal of Physics*: **A27**, 275-284.
- 142 Iddo YEKUTIELI & M 1994. Horton-Strahler ordering of random binary trees. *Journal of Physics*: **A27**, 285-293.
- 143 M, Drogana POPOVIC & al 1994. Spectra of reproducible conductance fluctuations in the resonant tunneling regime. *Bulletin of the American Physical Society*. Abstracts of the March Meeting: **39**, 792.
- 144 M & Dietrich STAUFFER 1994. Antipodal correlations and texture (fractal lacunarity) in critical percolation clusters. *Journal of Physics*: **A27**, L237-L242.

1995

- 145 Chi-Hang LAM, Henry KAUFMAN & M 1994. Orientation of particle attachment and local isotropy in diffusion-limited aggregates (DLA). *Journal of Physics*: **A28**, 1995, L213-L217.
• Abstract: *Bulletin of the American Physical Society*. Abstracts of the March Meeting: **39**, 138.
- 146 M, Henry KAUFMAN, Alessandro VESPIGNANI, Iddo YEKUTIELI & Chi-Hang LAM 1995. Deviations from self-similarity in plane DLA and the infinite drift scenario. *Europhysics Letters*: **29**, 599-604.
- 147 M 1995. Measures of fractal lacunarity: Minkowski content and alternatives. *Fractal Geometry and Stochastics* (Finsterbergen, 1994). Edited by Christopher Bandt, Siegfried Graf, & Martina Zähle. Basel & Boston: Birkhäuser, 1995, 12-38.
• Listener-prepared notes of a lecture based on the preceding two items: Fractal lacunarity and other tools for the characterization of complex shapes. *Journal of Research Institute for Science and Technology*, Chubu University: **7**, 1995, 141-156.
- 148 M 1995h. Introduction to fractal sums of pulses. *Lévy Flights and Related Phenomena in Physics* (Nice, 1994). Edited by Michael F. Shlesinger, George Zaslavsky, & Uriel Frisch. (Lecture Notes in Physics: **450**.) New York: Springer, 110-123.

• **WWW**. Updated version. Fractal sums of pulses and a practical challenge to the distinction between local and global dependence. *Long Range Dependent Stochastic Processes: Theory and Applications* (Bengalore, India, 2002). Edited by Govindan Rangarajan & Ming Ding. (Lecture Notes in Physics: **621**.) New York: Springer, 2003, 118-135.
- 149 M 1995b. Statistics of natural resources and the law of Pareto. *Fractals in Petroleum Geology and Earth Processes*. Edited by Christopher C. Barton & Paul La Pointe. New York: Plenum, 1-12.
- 150 **WWW M**. M 1995k. Negative dimensions and Hölder, multifractals and their Hölder spectra, and the role of lateral preasymptotics in science. *J. P. Kahane meeting* (Paris, 1993). Edited by Aline Bonami & Jacques Peyrière. *The Journal of Fourier Analysis and Applications*: special issue, 409-432.
- 151 M. Alessandro VESPIGNANI & Henry KAUFMAN 1995b. The geometry of DLA: different aspects of the departure from self-similarity. *Fractal Aspects of Materials* (Boston, 1994). Edited by Fereydoon Family, Paul Meakin, Bernard Sapoval, & Richard Wool. Pittsburgh, PA: Materials Research Society, 73-79.
• The Laplace equation and diffusion-limited aggregates. *Abstracts of the American Mathematical Society*. Annual Meeting, San Diego, CA, January 1997.

- 152 Renata CIOCZEK-GEORGES, M, Gennady SAMORODNITSKY, & Murad S. TAQQU 1995. Stable fractal sums of pulses: the cylindrical case. *Bernoulli*: **1**, 201-216.
- 153 Renata CIOCZEK-GEORGES & M 1995. A class of micropulses and antipersistent fractional Brownian motion. *Stochastic Processes and their Applications*: **60**, 1-18.
- 154 **WWW M.** M & Rudolf H. RIEDI 1995. Multifractal formalism for infinite multinomial measures. *Advances in Applied Mathematics*: **16**, 132-150.
• Outline: *Fractals and Disordered Systems*. Second edition. Edited by Armin Bunde & Shlomo Havlin. New York: Springer, 1995, 344-345.
- 155 M, Alessandro VESPIGNANI & Henry KAUFMAN 1995a. Cross-cut analysis of large radial DLA: departures from self-similarity and lacunarity effects. *Europhysics Letters*: **32**, 1995, 199-204.

1996

- 156 Henry KAUFMAN, Alessandro VESPIGNANI, M, & Lionel WOOG 1995. Parallel diffusion-limited aggregation. *Physical Review*: **E 52**, 5602-5609.
- 157 Juha-Pekka HOVI, Amnon AHARONY, Dietrich STAUFFER, & M 1996. Gap independence and lacunarity in percolation clusters. *Physical Review Letters*: **77**, 877-890.
- 158 **WWW M.** Stéphane JAFFARD & M 1995. Local regularity of nonsmooth wavelet expansions and application to the Polya function. *Advances in Mathematics*: **120**, 265-282.
- 159 Renata CIOCZEK-GEORGES & M 1996. Alternative micropulses and fractional Brownian motion. *Stochastic Processes and their Applications*: **64**, 143-152.

1997

- 160 **WWW M.** M & Rudolf H. RIEDI 1997. Inverse measures, the inversion formula, and discontinuous multifractals. *Advances in Applied Mathematics*: **18**, 50-58.
- 161 **WWW M.** Rudolf H. RIEDI & M 1997. Inversion formula for continuous multifractals. *Advances in Applied Mathematics*: **9**, 332-354.
- 162 Raphael BLUMENFELD & M 1997. Lévy dusts, Mittag-Leffler statistics, mass fractal lacunarity and perceived dimension. *Physical Review*: **E 56**, 112-118.
- 163 **WWW M.** M & Stéphane JAFFARD 1997. Peano-Pólya motions, when time is intrinsic (uniform) or binomial (multifractal). *The Mathematical Intelligencer*: **19(4)** 21-26.
- 164 **WWW M. & P.** M, Laurent CALVET, & Adlai FISHER 1997. The multifractal model of asset returns. *Cowles Foundation Discussion Papers*: **1164**.
- 165 **WWW M. & P.** Laurent CALVET, Adlai FISHER, & M 1997. Large deviations and the distribution of price changes. *Cowles Foundation Discussion Papers*. **1165**.
- 166 **WWW M. & P.** Adlai FISHER, Laurent CALVET, & M 1997. Multifractality of the Deutschmark/US Dollar exchange rates. *Cowles Foundation Discussion Papers*: **1166**.

1998

- 167 **WWW M.** Rudolf H. RIEDI & M 1998. Exceptions to the multifractal formalism for discontinuous measures. *Mathematical Proceedings of the Cambridge Philosophical Society*: **123**, 133-157.

- 168 M 1998e. Fractality, lacunarity and the near-isotropic distribution of galaxies. *Current Topics in Astrofundamental Physics* (Erice, 1997) Edited by Norma G. Sanchez & Antonio Zichichi. Dordrecht: Kluwer, 585-603.
- Enlarged version: Fractal lacunarity and scenarios for the near-isotropic distribution of galaxies. *Fundamental Problems in...Cosmology* (Paris, 1998). Edited by Hector de Vega, & Norma G. Sanchez Paris: Observatoire de Paris, 1999, 213-238.
 - Also in *Current Topics in Astrofundamental Physics: The Cosmic Microwave Background* (Erice). Edited by Norma G. Sanchez. Dordrecht: Kluwer, 2001, 365-390.

1999

- 169 **WWW P.** M 1999p. Renormalization and fixed points in finance, since 1962. *Statistical Physics 20, International IUPAP Conference* (Paris, 1998). Edited by D. Iagolnitzer. *Physica: A263*, 1999, 477-487.
- 170 **WWW M. & R.** Marc-Olivier COPPENS & M 1999. Easy and natural generation of multifractals: multiplying harmonics of periodic functions. *Fractals in Engineering* (Delft, 1999). Edited by Jacques Lévy-Véhel, Evelyne Lutton, & Claude Tricot. New York: Springer, 113-122.
- 171 **WWW.** M & Michael FRAME 1999. The canopy and shortest path in a self-contacting tree. *The Mathematical Intelligencer: 21 (2)*, 1999, 18-27.

2001

- 172 **WWW M & P.** M 2001a. Scaling in financial prices, I: Tails and dependence. *Quantitative Finance: 1*, 113-123.
- Reprint: *Beyond Efficiency and Equilibrium*. Edited by Doyne Farmer & John Geanakoplos, Oxford UK: The University Press, 2004.
- 173 **WWW M & P.** M 2001b. Scaling in financial prices, II: Multifractals and the star equation. *Quantitative Finance: 1*, 124-130.
- Reprint: *Beyond Efficiency and Equilibrium*. Edited by Doyne Farmer & John Geanakoplos, Oxford UK: The University Press, 2004.
- 174 **WWW K, M & P.** M 2001c. Scaling in financial prices, III: Cartoon Brownian motions in multifractal time. *Quantitative Finance: 1*, 427-440.
- 175 **WWW K, M & P.** M 2001d. Scaling in financial prices, IV: Multifractal concentration. *Quantitative Finance: 1*, 641-649.
- 176 **WWW M & P.** M 2001e. Stochastic volatility, power-laws and long memory. *Quantitative Finance: 1*, 558-559.

2002

- 177 **WWW.** M, Boaz KOL & Amnon AHARONY 2002. Angular gaps in radial diffusion-limited aggregation: fractal dimensions and nontransient deviations from linear self-similarity. *Physical Review Letters: 88*, 055501-1-4.
- 178 **WWW M.** Julien BARRAL & M 2002. Multifractal products of cylindrical pulses. *Probability Theory and Related Fields: 124*, 409-430.

2003

- 179 **WWW M.** M 2003f. Multifractal power-law distributions, other "anomalies," and critical dimensions, explained by a simple example. *Journal of Statistical Physics: 110*, 739-777.

- 180 **WWW P.** M 2003r. Heavy tails in finance for independent or multifractal price increments. *Handbook on Heavy Tailed Distributions in Finance*. Edited by Svetlozar T. Rachev (*Handbooks in Finance: 30*, Senior Editor: William T. Ziemba): **1**, 1-34.
- 181 J. ASIKAINEN, Amnon AHARONY, M, Erik RAUSCH, & Juha-Pekka HOVI 2003. Fractal geometry of critical Potts clusters. *European Physical Journal: B34 (4)*, 479-487.
- 182 **WWW K & M.** Julien BARRAL, Marc-Olivier COPPENS, & M 2003. Multiperiodic multifractal martingale measures. *Journal des mathématiques pures et appliquées: 82*, 1555-1589.

2005

- 183 **WWW M.** Julien BARRAL & M 2004a. Introduction to multifractal products of independent random functions: *Fractals*. Edited by Michel L. Lapidus. Providence RI: American Mathematical Society, 2005.
- 184 **WWW M.** Julien BARRAL & M 2004b. Non-degeneracy, moments, dimensions, and multifractal analysis for random multifractation measures. *Fractals*. Edited by Michel L. Lapidus. Providence RI: American Mathematical Society, 2005.
- 185 Parallel Cartoons of Fractal Models in Finance. *Annals of Finance: 1*.
- 186 M 2004. Fractal sums of pulses: self-affine global mesodiffusion and lateral limit theorems.
- 187 Renata CIOCZEK-GEORGES & M 2004. Stable fractal sums of pulses: the general case.