

MURAD S. TAQQU

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September 2013

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PERSONAL DATA

US Citizen, Married.

FOREIGN LANGUAGES

French, Hebrew, German, Italian, Arabic.

FIELDS OF INTEREST

Probability and Statistics
Time Series Analysis
Mathematical Finance
Telecommunication Networks

PROFESSIONAL ACTIVITIES

Member, American Mathematical Society (AMS)
Member, Bernoulli Society for Mathematical Sciences and Probability
Member, Institute of Mathematical Statistics (IMS)
Member of the Advisory Board of "Metron: International Journal of Statistics"

HONORS

John Simon Guggenheim Fellowship 1987-1988
Fellow of the Institute of Mathematical Statistics
Elected Member, International Statistical Institute
1995 William J. Bennett Award from the IEEE Communications Society
1996 IEEE W.R.G. Baker Prize Award
2002 EURASIP Best Paper Award
2006 ACM/SIGCOMM Test of Time Award

RESEARCH SUPPORT

Continuous grant support since 1977.

RECENT COURSE DESIGN

“Mathematics of Financial Derivatives”.

AWARD

Placed in the top ten percent of the faculty of the College of Engineering at Cornell University by the New York Delta Chapter of Tau Beta Pi in the *Excellence in Engineering Teaching Poll*. This poll determines the top teachers in the College according to students (1984).

1984 recipient of an Award of \$3700 from the Hatfield Fund for undergraduate education.

PATENT

Method and apparatus for estimating dominance norms of a plurality of signals.
(Patent pending, 2007)

EDUCATION

Columbia University (1967-1972)

Department of Mathematical Statistics

Degrees: Ph.D. (1972), Master of Arts (1969)

Award: Columbia University Faculty Fellowship

University of Maryland (1966-1967)

Department of Physics (Graduate School)

Université de Lausanne–Ecole Polytechnique (1961-1966)

Degrees: B.A. in Mathematics, B.A. in Physics

WORK EXPERIENCE

1985-	Professor with tenure, Department of Mathematics and Statistics, Boston University
2013 (1 month)	Professeur invité, Telecom Paris (France)
2012 (1 month)	Professeur invité, Telecom Paris (France)
2011 (1 month)	Professeur invité, Telecom Paris (France)
2011 (1 semester)	Visiting Professor, Department of Statistics, Columbia University (New York)

2010 (1 month)	Professeur invité, Telecom Paris (France)
2009 (3 weeks)	Professeur invité, Telecom Paris (France)
2008 (1 month)	Senior Visiting Fellow, Institute of Advanced Studies, University of Bologna (Italy)
2007 (1 month)	Professeur invité, Ecole Normale Supérieure des Télécommunications (France)
2007 (1 month)	Invited Professeur, Università di Torino (Italy)
2006 (1 month)	Professeur invité, Ecole Normale Supérieure des Télécommunications (France)
2005 (10 days)	Professeur invité, Ecole Normale Supérieure des Télécommunications (France)
2004 (spring semester)	Visiting Scholar, Department of Mathematics, Harvard University
2003 (fall semester)	University Fellow, Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, North Carolina
2002 (1 month)	Professeur invité, Université de Paris 6 (France)
2001 (2 months)	Professeur invité, Institut Henri Poincaré (Paris, France)
1987-1988	Visiting Scholar, Department of Mathematics, Harvard University Guggenheim Fellow.
1974-1986	Professor with tenure (previously Assistant and Associate Professor), School of Operations Research and Industrial Engineering, Cornell University. Member of the Fields of Statistics, Operations Research and Applied Mathematics
1985 (spring)	Visiting Research Scientist, Courant Institute for the Mathematical Sciences, New York University
1981-1982	Visiting Associate Professor, Stanford University
1973-1974	Postdoctoral Research Fellow, Weizmann Institute, Israel
1972-1973	Lecturer in Probability and Statistics, Hebrew University, Jerusalem, Israel
1969-71 (part-time)	National Bureau of Economic Research
1969 (summer)	IBM Research Center, Yorktown Heights
1963-1967	Various part-time teaching assistantships in Mathematics and Physics

PROFESSIONAL ACTIVITIES

Ph.D. students

Robert Fox 1983
Florin Avram 1986
Walter Willinger 1987
Norma Terrin 1990
Piotr Kokoszka 1993
Renata Cioszek-Georges 1993
Alberto Montanari 1996
Vadim Teverovsky 1997
Vladas Pipiras 2002
Brendan Bradley 2003
Stilian Stoev 2005
Yingchun Zhou 2007 (Eric Kolaczyk co-advisor)
D. Jeffrey Hamrick 2009
Mark Veillette 2010

Editorial work

Encyclopedia of Quantitative Finance (4-Volume Set, 2010). Section Editor.
Stochastic Processes and their Applications, former Associate Editor.
The Annals of Applied Probability, former Associate Editor.
Journal of Geophysical Research, special issue on “Rainfall”, Guest Editor
Reviewer for *Mathematical Reviews*
Reviewer for *Zentralblatt für Mathematik*
Member of the Advisory Board of *Metron: International Journal of Statistics*

Executive Member

Council of the Bernoulli Society, 1989-1993.
Precipitation Committee (Hydrology Section) of the American Geophysical Union, 1986-1988.

Reviewer of grant applications for

The National Science Foundation:

Statistics and Probability

Modern Analysis

Communications Systems and Signal Processing

Systems Theory and Operations Research

Interdisciplinary Grants in the Mathematical Sciences

The Air Force Office of Scientific Research

The National Research Council Board on Mathematical Sciences

Fulbright

The Natural Sciences and Engineering Research Council (NSERC) of Canada

The Netherlands Mathematics Research Foundation (SWON)

The Australian Research Council

The International Science Foundation

Centre Émile Borel of the Institut Henri Poincaré

The Israel Science Foundation (ISF)

Promotion and Tenure

Reviewed candidates for the purposes of promotion and tenure at national universities in the United States

Exchange programs

Lectured and conducted research in the Soviet Union under the joint auspices of the United States Academy of Sciences and the Academy of Sciences of the USSR (June 1981)

Invited to give a series of lectures in Vilnius, Soviet Union, as guest of the Academy of Sciences of the USSR (June 1987)

Invited to lecture in Leningrad at the Steklov Institute of the Academy of Sciences of the USSR (July 1989)

National Report

Invited to contribute to the preparation of a national report on the state of the Statistical Sciences and Probability under the sponsorship of the National Research Council (March 1985)

Consulting

Publishers of scientific books

IBM (Yorktown Heights, NY). Statistics for time series

Bell Laboratories (Piscataway, NJ). Automatic detection of outliers in telephone data

Investment firm

Computer Networks company

Referee for the following scientific journals

PROBABILITY AND STOCHASTIC PROCESSES JOURNALS

The Annals of Probability

Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete

Probability Theory and Related Fields

Stochastic Processes and their Applications

Bernoulli

Advances in Applied Probability

Journal of Applied Probability

STATISTICS JOURNALS

The Annals of Statistics

Journal of the American Statistical Association

Statistical Science

Journal of Multivariate Analysis

Journal of Statistical Planning and Inference

Canadian Journal of Statistics

Journal of Nonparametric Statistics

MATHEMATICS JOURNALS

Proceedings of the American Mathematical Society

The Journal of Fourier Analysis and Applications

SIAM Journal on Applied Mathematics

Bulletin of the Iranian Mathematical Society

Fractals

FINANCE AND ECONOMICS JOURNALS

Mathematical Finance

Quantitative Finance

Revue Finance

The Review of Economics and Statistics

Empirical Economics

Journal of Empirical Finance

Journal of Econometrics

OPERATIONS RESEARCH JOURNALS

Mathematics of Operations Research

Operations Research

Naval Research Logistics Quarterly

Operations Research Letters

PHYSICS JOURNALS

Journal of Statistical Physics

Physica A

GEOPHYSICS JOURNALS

Journal of Geophysical Research

Geophysical Research Letters

Water Resources Research

APPLICATIONS JOURNALS

IEEE Transactions on Information Theory

IEEE Transactions on Acoustics, Speech and Signal Processing

IEEE Communication Letters

IEEE/ACM Transactions on Networking

IEEE/ACM Transactions on Communications

IEE Proceedings – Computers and Digital Techniques

Computer Networks

Electronic Letters

Performance Evaluation

Advances in Engineering Software

OTHER JOURNALS

Nature

Proceedings of the National Academy of Sciences

Organization of international conferences

Co-organizer of the 12th Conference on “Stochastic Processes and their Applications,” Ithaca (July 1983)

Co-organizer of a conference on “Dependence in Probability and Statistics,” Oberwolfach, West Germany (April 1985)

Co-organizer of a Workshop on “Stable Processes and Related Topics” at the Mathematical Sciences Institute, Ithaca (January 1990)

Co-organizer of an Interdisciplinary Workshop at the Institute for Mathematics and its Applications on *New Directions in Time Series Analysis*, Minneapolis (July 1990)

Member of the Organizing Committee of Hydrofractals '93, Ischia, Italy (October 1993).

Co-organizer of a Workshop on “Scaling, (Quasi-) Long Range Dependence and Self-Similarity: Theory and Applications,” CIMAT, Guanajuato, Mexico (March 1997)

Session Organizer

Invited Paper Session on *Time Series Analysis* at the 203rd Meeting of the Institute of Mathematical Statistics (March 1988)

Invited Paper Session on *Self-Similar Processes* at the Special Institute of Mathematical Statistics meeting in Applied Probability, Sheffield, England (August 1989)

Barrett Lectures on *Infinite Dimensional Stochastic Differential Equations*, Knoxville, Tennessee (March 1993)

Invited Paper Session on *Estimation under Long-Range Dependence* – sponsored by the Bernoulli Society – at the 58th Meeting of the International Statistical Institute in Dublin, Ireland (August 2011)

INVITED LECTURES

Invited lectures at national meetings of the following societies

Institute of Mathematical Statistics

American Statistical Association

American Mathematical Society

American Geophysical Union

Operations Research Society of America

Invited series of lectures

Series of two lectures, Carleton University
Ottawa, Canada (June 1978)

Series of three lectures, Centre de Recherches Mathématiques,
Université de Montréal, Montréal, Canada (January 1979)

Series of seven lectures, Stanford University,
Stanford, CA (June 1982)

Series of five lectures, Colorado State University,

Fort Collins, CO (January 1983)
 Series of six lectures, 11th Probability Summer School,
 Lahti, Finland (June 1987)
 Series of three lectures, Spring School at the Centre de Physique,
 Series of two lectures, Academia Sinica
 Taipei, Taiwan (August 1995)
 Les Houches, France (May 1996)
 Series of three lectures, Annual Meeting of Dutch Statisticians and Probabilists, and
 satellite meeting for Ph.D. Students, Lunteren, The Netherlands (November 1996)
 Series of two lectures, Université Paris-Sud, Orsay, France (April 1997)
 Series of two lectures, Workshop on Stable Processes, Okayama, Japan (January 1999)
 Series of two lectures, CeVis (Center for Complex Systems and Visualization),
 University of Bremen, Bremen, Germany (March 1999)
 Series of three lectures, 3^e Cycle Roman de Statistique et de Probabilités Appliquées,
 Villars-sur-Ollon, Vaud, Switzerland (March 2000)
 Series of six lectures, Special Statistics semester at the Institut Henri Poincaré, Paris, France.
 Spoke on the “ Statistique des Observations Dépendantes” (May and June 2001)
 Series of five lectures, University Uniroma 1 (La Sapienza), Rome, Italy (March 2004)
 Series of three lectures, Universidad Carlos III de Madrid en Getafe, Spain (June 2004)
 Series of four lectures (mini-course), Brazilian School of Probability at IMPA
 (Instituto Nacional de Matemática Pura e Aplicada),
 jointly with the 2006 IMS Annual Meeting, Rio de Janeiro, Brazil
 Spoke on “Self-similarity and Long-range Dependence” (August 2006).

Invitations at International Conferences

János Bolyai Colloquia, Estergom, Hungary (1979)
 International Statistical Institute, Manila, Philippines (1979)
 Mathematischen Forschungsinstitut, Oberwolfach, Germany (1980)
 Third International Vilnius Conference on Probability Theory and Mathematical Statistics,
 Vilnius, USSR (1981)
 IBM Europe Summer Institute, Courchevel, France (1982)
 Mathematischen Forschungsinstitute, Oberwolfach, Germany (1985)
 Chapman Conference, Caracas, Venezuela (1986)
 Fractal Geometric Workshop, Montréal, Canada (1986)
 First World Congress of the Bernoulli Society for Mathematical Statistics and Probability.
 Official guest of the Soviet Academy of Sciences, Tashkent, USSR (1986)
 Institute of Mathematical Statistics Satellite Meeting, Kyoto, Japan (1987)

International Statistical Institute, Tokyo, Japan (1987)

17th Conference on Stochastic Processes and their applications, Rome, Italy (1988)

Annual Meeting of the Statistical Society of Canada in Ottawa (1989)

Fifth International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, USSR (1989)

International Statistical Institute, Paris, France (1989)

Stefan Banach International Mathematical Center, Warsaw, Poland (1990)

Twentieth Conference on Stochastic Processes and their Applications, The Technion, Haifa, Israel (1991)

Twenty-first Conference on Stochastic Processes and their Applications, York, Canada (1992)

New Direction in Time Series Analysis Workshop, Heidelberg, Germany (1992)

International Meeting of the French Finance Association, Paris, France (1992)

Conference on Multifractals and Wavelets, Cambridge, England (1993)

Hydrofractals '93, International Conference on fractals in Hydrosience, Ischia, Italy (1993)

Third World Congress of the Bernoulli Society, Chapel Hill, North Carolina (1994)

Conference on Fractal Geometry and Self-Similar Phenomena, Curaçao, Netherland Antilles (1995)

First International Conference on High Frequency Data in Finance (Discussant), Zürich, Switzerland (1995)

International Statistical Institute, Beijing, China (1995)

Stable Time Series, Santa Barbara, California (1995)

Conference in the Honor of Stamatis Cambanis, Athens, Greece (1995)

Conference on “ $1/f$ – Long-Range Dependent Processes – From Models to Applications”, Les Houches, France (May 1996)

Conference on “Stable Processes and other Heavy-tailed Models for Highly Volatile Phenomena” Wroclav, Poland (1996)

Fourth World Congress of the Bernoulli Society, Vienna, Austria (1996)

50th Anniversary Conference, Chapel Hill, North Carolina (1996)

Annual Meeting of Dutch Statisticians and Probabilists, Lunteren, The Netherlands (1996)

Workshop on Long-Range Dependence in Queensland Institute of Technology, Brisbane, Australia (1997)

Workshop on “Scaling, (Quasi-) Long Range Dependence and Self-Similarity: Theory and Applications,” CIMAT, Guanajuato, Mexico (1997)

Workshop on “Turbulence, Ondelettes et Statistiques non-Gaussiennes”, Ecole Normale Supérieure de Cachan, France (1997)

Workshop on “Networks and Random Structure on Trees”, Sandbjerg, Denmark (1997)

INFORMS meeting (Institute for Operations Research and the Management Sciences), Boston (1997)

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- Mathematisches Forschungsinstitut Oberwolfach (Invited Participant), Oberwolfach, Germany (1998)
- Second International Conference on High Frequency Data in Finance (Discussant), Zürich, Switzerland (1998)
- International Congress of Mathematicians (Attended), Berlin, Germany (1998)
- Fractal Geometry and Stochastics II, Greifswald - Koserow, Germany (1998)
- Workshop on Stable Processes, Okayama, Japan (1999)
- Mathematisches Forschungsinstitut Oberwolfach, Germany (1999)
- Workshop on Applications of Heavy Tailed Distributions in Economics, Engineering and Statistics, American University, Washington, DC (1999)
- Conference on Data Analysis, Nortel Institute for Telecommunications of the University of Toronto, the Fields Institute, Toronto, Canada (2000)
- 18th Nordic Conference on Mathematical Statistics, Grimstad, Norway (2000)
- 23rd International Conference on Mathematical Geophysics, Villefranche sur Mer, France (2000)
- The First World Congress of the Bachelier Finance Society, Paris, France (2000).
- Conference on Quantitative Risk Management in Finance, Pittsburgh, Pennsylvania (2000)
- Conference on “Stable Laws, Processes, and Applications”, Oberwolfach, Germany (2001)
- International Conference on “Long Range Dependent Stochastic Processes and their Applications”, Bangalore, India (2002).
- Workshop on “Long Range Dependence, Heavy Tails and Rare Events with Applications to Finance and Telecommunications”, Copenhagen, Denmark (2002).
- Colloque “Autosimilarité et Applications”, Clermont-Ferrand, France (2002).
- Colloque “Aléa et Autosimilarité”, Orléans, France (2002).
- The 8th International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius, Lithuania (2002).
- 24th European Meeting of Statisticians, Prague, Czech Republic (2002).
- “Statistical Methods for Financial Risk Management” Copenhagen, Denmark (2003).
- “3rd Conference on Lévy Processes: Theory and Application”, Paris, France (2003).
- “2nd International Workshop in Applied Probability”, Piraeus, Greece (2004)
- “36th Journées de Statistique”, Société Française de Statistique, Montpellier, France (2004)
- “Congrès Franco-Canadien” Toulouse, France (2004)
- “6th World Congress of the Bernoulli Society”, Barcelona, Spain (2004)
- “Practical applications of Fractals”, Abdus Salam International Centre for Theoretical Physics, Trieste, Italy (2004)
- “National Visitors Program in Mathematics”, Helsinki University of Technology and VTT, Espoo, Finland (2005)
- “Workshop on Stochastic Analysis”, Hankasalmi, Finland (2005)

Conference on “Heavy tails and stable Paretian distributions in finance and macroeconomics”
Deutsche Bundesbank, Eltville, Germany (2005)

“International Symposium Bruno de Finetti Centenary Conference” Rome, Italy (2006)

“Conference in honour of Peter Michael Robinson” London School of Economics, London,
United Kingdom (2007)

“ESTE, 12th Escola de Séries Temporais e Econometria” Gramado, Brazil (2007)

Workshop on “Limit Theorems and Applications”, Paris, France (2008)

Workshop on “Emerging Directions in Probability and Statistics”, University of Notre Dame,
Indiana (2008)

“Third La Pietra week in Probability”, Florence, Italy (June 2008)

“2008 International Workshop in Applied Probability”, Compiègne, France (2008).

International workshop on “Progress in Stein’s Method”, Singapore (2009)

“International conference on selfsimilar processes and their applications”, Angers, France
(2009)

“33rd Conference on Stochastic Processes and Their Applications”, Berlin, Germany (2009)

“New Topics at the Interface Between Probability and Communications”, Newton Institute
(2010)

“Lévy 2010 conference”, Dresden, Germany (2010)

Conference on “Self-similarity and related fields”, Le Touquet, France (2011)

American Mathematical Society 2012 annual meeting. Special session in memory of Benoit
Mandelbrot on “Fractal Geometry in Pure and Applied Mathematics (2012).

“10th German Probability and Statistics Days 2012 - Stochastik-Tage”, Mainz, Germany.
Plenary talk (2012).

International Conference on “Long-Range Dependence, Self-similarity and Heavy Tails”
(Conference in my honor). Research Triangle Park, North Carolina, USA (2012).

“Stochastic Analysis Days (STAN DAYS)”, Nancy, France (2012)

“International Workshop in Applied Probability (IWAP 2012)”, Jerusalem, Israel (2012).

“The 8th World Congress in Probability and Statistics”, Istanbul, Turkey (2012)

Invited talks (since 1981)

UNITED STATES:

BBN (Bolt Beranek and Newman, Inc., Cambridge, MA)

BELLCORE (Bell Communications Research, Morristown, NY)

Boston College

Boston University

Brown University

Carnegie Mellon University

City University of New York
Columbia University
Cornell University
Duke University
EXXON (Annandale, NJ)
Harvard University
IBM (Yorktown Heights, NY)
Institut Telecom (Paris, France)
Johns Hopkins University
Massachusetts Institute of Technology
Michigan State University
Naval Postgraduate School (Monterey)
New York University
Northeastern University
Northwestern University
North Carolina State University
Princeton University
Rutgers University
Stanford University
State University of New York at Stony Brook
Tufts University
University of California at Berkeley
University of California at Davis
University of California at Los Angeles
University of California at San Diego
University of Chicago
University of Connecticut at Storrs
University of Massachusetts at Amherst
University of Massachusetts at Lowell
University of Maryland in College Park
University of Michigan at Ann Arbor
University of North Carolina at Chapel Hill
University of Pennsylvania
University of Virginia at Charlottesville
Yale University

ABROAD:

Academia Sinica (Taipei, Taiwan)
Carleton University (Ottawa, Canada)
Collegio Carlo Alberto (Moncalieri, Italy)
Collegio Superiore (Bologna, Italy)
ENST Ecole Normale Supérieure des Télécommunications (Paris, France)
EPFL Ecole Polytechnique Fédérale de Lausanne (Lausanne, Switzerland)
ESSEC Ecole Supérieure de la Statistique et des Etudes Commerciales (Paris, France)
ETH Eidgenössische Technische Hochschule (Zürich, Switzerland)
Finnish Mathematical Society (Helsinki, Finland)
Forschungsinstitut für Mathematik, ETH Zürich (Switzerland)
Hong Kong University of Science and Technology (Hong Kong)
Indian Statistical Institute (New Dehli, India)
INSEE Institut National de la Statistique et des Etudes Economiques, (Paris, France)
INRIA Institut National de Recherches en Informatique et Automatique (Versailles, France)
Keio University (Tokyo, Japan)
London School of Economics (London, England)
Maria Curie-Skłodowska University (Lublin, Poland)
Moscow University (USSR)
Okayama University of Science (Okayama, Japan)
Politecnico di Milano (Italy)
SERC Software Engineering Researchs Centre (Melbourne, Australia)
Steklov Institute (Leningrad, USSR)
Technion (Haifa, Israel)
Università degli Studi di Roma (Uniroma 1) La Sapienza (Rome, Italy)
Université de Cergy-Pointoise (Cergy-Pointoise, France)
Université de Clermond-Ferrant (Clermond-Ferrant, France)
Université de Lille (Lille, France)
Université de Paris 6 (France)
Université de Paris-Sud (Orsay, France)
Université Paul Sabatier (Toulouse, France)
University of Barcelona (Spain)
University of Bochum (Germany)
University of Bologna (Italy)
University of Bremen (Bremen, Germany)
University of British Columbia (Vanvouver, Canada)
University of Groningen (The Netherlands)
University Carlos III de Madrid en Getafe (Spain)

University of Iceland (Reykjavik, Iceland)
University of New South Wales (Sydney, Australia)
University of Padova (Italy)
University of Tel Aviv (Israel)
University of Toronto (Canada)
University of Uppsala (Sweden)
University of Venice (Italy)
University of Western Ontario (Canada)
Victoria University at Wellington (New Zealand)
York University (Canada)

PUBLICATIONS

BOOKS

- [1] *Dependence in Probability and Statistics*. Ernst Eberlein and Murad S. Taqqu, editors. Progress in Probability and Statistics Series, Vol. 11. ISBN 0-8176-3323-5. Birkhäuser, Boston (1986).
- [2] *Stable Processes and Related Topics*. Stamatis Cambanis, Gennady Samorodnitsky and Murad S. Taqqu, editors. Progress in Probability Series. Vol. 25. ISBN 0-8176-3485-1. Birkhäuser, Boston (1991).
- [3] *New Directions in Time Series Analysis, Part I*. David Brillinger, Peter Caines, John Geweke, Emanuel Parzen, Murray Rosenblatt and Murad S. Taqqu, editors. The IMA Volumes in Mathematics and its Applications. Series. Vol. 45. ISBN 0-387-97896-8. Springer Verlag, New York, (1992).
- [4] *New Directions in Time Series Analysis, Part II*. David Brillinger, Peter Caines, John Geweke, Emanuel Parzen, Murray Rosenblatt and Murad S. Taqqu, editors. The IMA Volumes in Mathematics and its Applications. Series. Vol. 46. ISBN 0-387-97914-X. Springer Verlag, New York, (1992).
- [5] *Stable Non-Gaussian Random Processes: Stochastic Models with Infinite Variance*. Gennady Samorodnitsky and Murad S. Taqqu, ISBN 0-412-05171-0, Chapman and Hall, New York (1994).
- [6] *Stochastic Processes and Related Topics: In memory of Stamatis Cambanis 1943-1995*. Ioannis Karatzas, Balram S. Rajput, Murad S. Taqqu, editors. Trends in Mathematics Series. ISBN 3-7643-3998-5. Birkhäuser, Boston (1998).
- [7] *A Practical Guide to Heavy Tails: Statistical Techniques and Applications*. Robert J. Adler, Raisa E. Feldman and Murad S. Taqqu, editors. ISBN 0-8176-3951-9. Birkhäuser, Boston (1998).
- [8] *Theory and Applications of Long-range Dependence*. Paul Doukhan, Georges Oppenheim and Murad S. Taqqu editors. ISBN 0-8176-4168-8. Birkhäuser, Boston (2003).
- [9] *Wiener Chaos: Moments, Cumulants and Diagrams, A survey with Computer Implementation*. Giovanni Peccati and Murad S. Taqqu. ISBN 978-88-470-1679-8. Springer-Verlag Italia (2011).

ARTICLES

- [1] "Note on evaluation of R/S for fractional noises and geophysical records," *Water Resources Research*, **6** (1970), 349-350.
- [2] "Weak convergence to fractional Brownian motion and to the Rosenblatt process." *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete*, **31** (1975) 287-302.

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- [] “Smooth variation and the functional law of the iterated logarithm” (1976). School of Operations Research & Industrial Engineering Technical Report No. 293, Cornell University. Appears as an appendix in *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete*, **40** (1977) 203-238.
- [3] “Law of the iterated logarithm for sums of non-linear functions of Gaussian variables that exhibit a long range dependence.” *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete*, **40** (1977) 203-238.
- [4] “A representation for self-similar processes.” *Stochastic Processes and their Applications*, **7** (1978) 55-64.
- [5] “Convergence of integrated processes of arbitrary Hermite rank”. *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete*, **50** (1979) 53-83.
- [6] “Robust R/S analysis of long-run serial correlation” (with Benoit B. Mandelbrot). Proceedings of the 42nd Session of the International Statistical Institute, Manila (1979). *Bulletin of the I.S.I.*, Vol. **48**, Book 2, pp. 69-104.
- [7] “Self-similar processes and related ultraviolet and infrared catastrophes.” In *Random Fields: Rigorous Results in Statistical Mechanics and Quantum Field Theory*. Colloquia Mathematica Societatis János Bolyai, Vol. **27**, Book 2, pp. 1057-1096 (1981). North Holland: Amsterdam.
- [8] “Regular multigraphs and their applications to the Monte Carlo evaluation of moments of non-linear functions of Gaussian processes” (with Jeffrey Goldberg). *Stochastic Processes and their Applications*, **13** (1982) 121-138.
- [9] “Infinite variance self-similar processes subordinate to a Poisson measure” (with Robert L. Wolpert). *Zeitschrift für Wahrscheinlichkeitstheorie und verwandte Gebiete*, **62** (1983) 53-72.
- [10] “Invariance principle for symmetric statistics” (with Avi Mandelbaum). *The Annals of Statistics*, **12** (1984) 483-496.
- [] “Double integration with respect to stable processes” (with Terry McConnell). School of Operations Research and Industrial Engineering Technical Report No. 618, Cornell University (1984).
- [] “A geometric approach to constructing martingale measures: the discrete case” (with Walter Willinger). School of Operations Research and Industrial Engineering Technical Report No. 635, Cornell University (1984).
- [11] “Orthogonal processes.” *Encyclopedia of Statistical Sciences*, ed. S. Kotz and N. Johnson, Vol. **6**, pp. 536-537 (1985), Wiley: New York.
- [12] “Generalized powers of strongly dependent random variables” (with Florin Avram). School of Operations Research and Industrial Engineering Technical Report No. 643, Cornell University. *Seminar Notes on Multiple Stochastic Integration, Polynomial Chaos*

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- and their Applications*, No. 85-34. Math. and Stat. Case Western Reserve: Cleveland (1985).
- [13] “Reproducing Kernel Hilbert space for some non-Gaussian processes” (with Claudia Czado). In: *Probability in Banach Spaces V*. Refereed proceedings of the International Conference held in Medford, USA, July 16-27, 1984. A. Beck et al. editors, Lecture Notes in Mathematics, Vol. 1153 (1985), 128-140, Springer Verlag, N.Y.
- [14] “A survey of functional laws of the iterated logarithm for self-similar processes” (with Claudia Czado). *Stochastic Models*, **1** (1985) 77-115.
- [15] “Non-central limit theorems for quadratic forms in random variables having long-range dependence” (with Robert Fox). *Annals of Probability*, **13** (1985) 428-446.
- [16] “Sojourn in an elliptical domain.” *Stochastic Processes and their Applications*, **21** (1986) 319-326.
- [17] “Symmetric polynomials of random variables attracted to an infinitely divisible law” (with Florin Avram). *Probability Theory and Related Fields*, **71** (1986) 491-500.
- [18] “Large sample properties of parameter estimates for strongly dependent stationary time series” (with Robert Fox). Previous title: “Maximum likelihood type estimator for the self-similarity parameter in Gaussian sequences.” *The Annals of Statistics*, **14** (1986) 517-532.
- [] “Different scaling for finite variance i.i.d. arrays” (with Florin Avram) (1986).
- [19] “Dyadic approximations of double integrals with respect to symmetric stable processes” (with Terry R. McConnell). *Stochastic Processes and their Applications*, **22** (1986) 323-331.
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