

VITA: SIDNEY RESNICK



Lee Teng-Hui Professor in Engineering
School of Operations Research and Information Engineering
Cornell University, Rhodes Hall 214,
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592 2101 (mobile)

Education:

B.S. (Mathematics), Queens College, New York June 1966.
M.S. (Mathematical Statistics), Purdue University, February 1968
Ph.D. (Mathematical Statistics), Purdue University, January 1970

B.S. received cum laude with departmental honors in mathematics, Phi Beta Kappa
N.S.F. Trainee, Purdue University, 1966-69

Professional Experience:

Summer 1967	Operations Research and Statistics Division, Ford Motor Company, Dearborn, Michigan
1969-70	Research Fellow, Department of Mathematical Statistics, Purdue University
February 1970 - February 1972	Lecturer, Faculty of Industrial and Management Engineering, Technion, Haifa, Israel.
September 1971	Assistant Professor, Department of Statistics, Stanford University
December 1977	Associate Professor, Department of Statistics, Colorado State University
May 1981	Professor, Department of Statistics, Colorado State University
July, 1987	Professor, Operations Research and Industrial Engineering, Cornell University
July, 1999– June 2004	Director, School of Operations Research and Industrial Engineering, Cornell University
November 2008	Designated Lee Teng-Hui Professor in Engineering

Membership in Professional Societies:

Institute of Mathematical Statistics
INFORMS

Honors:

Fellow of the Institute of Mathematical Statistics

Departmental nominee for Humanities and Sciences excellence-in-teaching award, 1975-76

Lady Davis Fellowship, 1981

Oliver P. Pennock Distinguished Service Award, Colorado State University, 1984

U.K. Science and Engineering Research Council Fellowship, 1985

Fellow of the International Statistical Institute, 1988

Designated by Merrill Presidential Scholar Michael Paul as the faculty member who most influenced his Cornell career, 1991.

Special Appointments:

July 1, 1971–
Oct. 1, 1971 Visiting research associate. Appointed jointly by the Mathematics Institute of the University of Amsterdam and the Mathematics Center, Amsterdam.

Sept. 1975 -
Feb. 1976 Visiting Scientist, CSIRO, Division of Mathematics and Statistics, Canberra, Australia

Visiting Fellow, Department of Statistics, SGS, Australian National University, Canberra, Australia

Aug. 1, 1977–
Nov. 30, 1977 Visiting research associate, Erasmus University, Rotterdam, Holland

Sept. 1, 1981–
Jan. 30, 1982 Visiting research associate, Erasmus University, Rotterdam, Holland

Feb. 1, 1982–
July 31, 1982 Visiting Fellow, Technion, Faculty of Industrial and Management Engineering, Technion, Haifa, Israel

Aug. 1, 1985–
July 31, 1986 S.E.R.C. Research Fellow, Department of Mathematics, Sussex University, Brighton, UK

July 1, 1992–
July 21, 1992 Visiting Fellow, ETH, Department of Mathematics, Zurich, Switzerland.

January, 1996 Visiting research associate, Erasmus University, Rotterdam, Holland

July 10-24, 1997; Fall 1999	Visiting researcher, Department of Statistics, University of North Carolina, Chapel Hill.
Spring 1999	Visiting Scientist, AT&T Labs Research, Florham Park, NJ.
Summer 2004	Visiting Lecturer, University of Bern, Switzerland for special short course.
May 7-June 18, 2005	Eurandom Professor, Eurandom, Eindhoven, the Netherlands. Presentation of public lecture and short course.
July 4-Aug 13, 2005	Australia: July 4–August 5: Australian National University, Canberra, Australia; August 5-13: University of Melbourne.
Aug 27–Dec 30, 2005	Columbia University: Jointly hosted and supported by Departments of Statistics, IE&OR, and the Graduate School of Business.
Jan 1-May 31, 2006	University of North Carolina, Chapel Hill, Department of Statistics and Operations Research and SAMSI, Research Triange Park.
May 7–June 31, 2007	John von Neumann Visiting Professor, Technical University, Munich.
Spring 2008	Visitor to SAMSI, RTP, NC 8 days/month to participate in <i>Risk Analysis, Extreme Events and Decision Theory</i> .
June 2009	Month long visit to ETH Zurich.

Selected Invited Conference Lectures:

July 27 - Aug. 3, 1973	Invited lecturer, Summer Research Institute, Canadian Math. Congress, Carleton University, Ottawa. Three lectures on Extremal Processes, Records and Maxima.
August 5 - 9, 1974	Invited lecturer, Fourth Conference on Stochastic Processes and Their Applications, York University, Ontario. Topic: Extremal Processes.
Aug. 25 - 28, 1975	Invited lecturer, IMS annual meeting, Atlanta, Georgia. Session: Maximal Processes. Title: A Survey of Extremal Processes.
June 15 - 16, 1979	Invited lecturer, AMS Western Regional Meeting, Vancouver. Title: Regularly Varying Tail Probabilities and Point Processes.
March 12 - 14, 1980	Invited lecturer, IMS Eastern Regional Meeting, Charleston, South Carolina. Session: Stable and Operator Stable Laws on Euclidean Spaces II. Title: Point Processes and Multivariate Stable Laws.
August 18-21, 1980	Invited lecturer, IMS Regional Meeting, Ann Arbor, Michigan. Session: Applied Probability. Title: Storage Processes with General Release Rule and Additive Inputs.
August 17-20, 1981	Applied Probability session organizer, IMS Annual Meeting, Vail, Colorado.

- March 17, 1982 Invited lecturer: Annual Meeting of the Israel Statistical Society. Title: Extremal Processes and Records.
- August 15-18, 1983 Invited lecturer: IMS Annual Meeting, Toronto. Title: Point Processes, Regular Variation and Weak Convergence.
- May 14-16, 1984 Applied Probability session organizer, Point Processes, ORSA/TIMS Annual Meeting, San Francisco, California.
- May 30 - June 1, 1984 Mini-conference on Inference for Stochastic Processes, Lexington, Kentucky. Invited lecture: Tail Estimates Motivated by Extreme Value Theory.
- June 18-20, 1984 Applied Probability session organizer, IMS Western Regional Meeting, Logan, Utah.
- August 21-24, 1984 Invited lecturer, IMS Annual Meeting, Lake Tahoe, California. Title: Limit Theory for Moving Averages of Random Variables.
- March 20-30, 1985 Invited lecturer, IMS Regional Meeting, Austin, Texas. Applied Probability Session. Title: Records from Improving Populations.
- November 13-15, 1985 Invited lecturer, 14th Lunteren meeting of Dutch Statistics Society. Title: Limit Theory for Moving Averages.
- March 19, 1986 Invited lecturer, Belgian Contact Group in Probability, Leuven. Title: Records in the Plane and Random Sets.
- April 27, 1986 Invited lecturer, 22nd Gregynog Statistical Conference, Wales. Title: Records from Improving Populations.
- June 13, 1986 Invited lecturer, North Britain Probability Theory Seminar, Strathclyde University, Glasgow. Title: Limit Theory for Moving Averages.
- June 22, 1987 Invited lecturer, NSF Workshop: Extremes of Random Processes in Applied Probability, Santa Barbara, Ca. Titles: (1) Moving Averages of Random Variables with Regularly Varying or Exponential-like Tails. (2) Multivariate Extremes and Random Sets.
- December 6, 1987 Invited lecturer, Conference on extreme values, Oberwolfach, Germany. Title: Multivariate Records.
- March 18, 1988 Invited lecturer, Syracuse and Rochester Universities, Joint Symposium on Probability Theory. Title: Some Multivariate Extreme Value Problems.
- March 26-28, 1988 Invited lecturer, Mini-Conference on Independent Random Variables: Their Sums and Extremes. Boston, Mass. Title: Point Processes and Weak Convergence.

- March 5-7, 1990 Invited lecturer, SIAM Conference on Applied Probability, New Orleans. Title: Choice Theory.
- April 1-4, 1990 Program Chair and invited lecturer, IMS Eastern Regional Meeting, Baltimore. Title: Scaled Limits of Random Samples in \mathbb{R}^d .
- April 11-12, 1992 Invited lecturer, AMS Regional Meeting, Lehigh University. Title: Densities with Gaussian Tails.
- March 15, 1993 Session organizer: IMS Probability Meeting, Bloomington Indiana. Session title: Heavy tailed modelling and long range dependence.
- May 3-6, 1993 Invited lecturer, NIST/Temple University Conference on Extreme Values, Gaithersburg, Md. Title: Some Choice Models.
- May 19-28, 1994 Invited lecturer, Conference on Multivariate Extreme Value Estimation with Applications to Economics and Finance, Rotterdam, Holland. Title: Estimating the limit distribution of multivariate extremes.
- June 20-25, 1994 Invited lecturer, Third World Congress of the Bernoulli Society for Mathematical Statistics and Probability and the 57th Annual Meeting of the Institute of Mathematical Statistics, University of North Carolina, Chapel Hill. Title: Linear programming time series estimators.
- Invited lecturer, Third ORSA (now INFORMS) Telecommunications Conference, Sheraton Inn, Boca Raton, Florida. Title: Estimation for Heavy Tailed Time Series with teletraffic applications.
- June 14-16, 1995, Invited lecturer, 8-th Applied Probability Group Conference Georgia Institute of Technology, Atlanta, Georgia. Sponsored by the ORSA/TIMS Applied Probability Group Title: "On Heavy Tailed Modelling".
- July 17, 1995 CSS Presidential Invited Speaker, IMS/ CSS Annual statistics meetings, Montreal. Title: Heavy Tailed Modelling.
- May 28, 1996 Invited Talk: Annual Meeting of the Israel Statistical Society, Jerusalem: Why nonlinearities can ruin the heavy tailed modellers day.
- February 2-8, 1997 Invited Talk: Oberwolfach conference on Point Processes and their Applications, Pitfalls of modeling heavy tailed data.
- May 5-7, 1997 Session organizer: Heavy Tails and/or Long Range Dependence, INFORMS, San Diego.

- March 20-22, 1995
June 10, 1997
June 30, 1997
- Invited speaker, Portuguese Statistical Society Annual Meeting: Heavy tailed modeling—What works and what doesn't.
- Invited speaker, Ninth INFORMS Applied Probability Conference, Boston. Title: Patterns of buffer overflow in fluid queues exhibiting long range dependence.
- October 13, 1997
- Invited speaker, Dimacs Conference on End-to-end Network modeling, Princeton NJ. Title: Fluid queues, buffer overflows and on/off modeling.
- March 20-22, 1995
December 18, 1997
- Invited speaker, Rotterdam (Holland) Conference on Extreme Values. Title: Why the sample correlation function will break your heart.
- April 24, 1998
- Invited speaker, Applied Probability Day, Columbia University. Title: Why the sample correlation function will break your heart.
- August 18-22, 1998
- Conference on "Extremes, Risk and Safety", Stochastic Center, Gothenberg, Sweden. Title: Fluid queues, telecommunication models with heavy tailed inputs and long range dependence.
- April 12–16, 1999
- Eindhoven, Holland; Eurandom Conference on Network Modelling. Title: Heavy tails and long range dependence in network traffic modelling.
- June 3–5, 1999
- American University, Washington DC, Conference on Heavy Tails and their Applications. Title: Is network traffic best approximated by fBM or a Lévy stable motion?
- October 22-24, 1999
- Institute of Mathematics and its Applications Hot Topics Workshop: "Scaling Phenomena in Communication Networks" , University of Minnesota.
- April 15, 2000
- Seaway Section of the Mathematics Association of America. Harry M. Gehman Lecture: Infinite Node Poisson Models with Heavy Tailed Transmission Times; Applied Probability Modeling of Data Networks.
- March 22, 2001
- Third Prem S. Puri Memorial Lecture, Purdue University: Infinite source Poisson models with heavy tailed transmission times: Probabilistic modeling and data networks.

- June 18-20, 2001 Canadian Institute of Actuaries Annual Meeting: Extreme Value Theory. Toronto, Ontario.
- October 28- November 3, 2001 Mathematisches Forschungsinstitut Oberwolfach, Germany; Conference on Stable Laws, Processes and Applications. Invited talk: Data Network Modeling on Large and Small Time Scales.
- December 10-15, 2001 SEMSTAT, Gothenberg, Sweden. Invited 5 hour lecture on *Modeling Data Networks*.
- June 3-8, 2002 Finland Summer School, 6 hours of lectures on Heavy tailed modeling with application to finance and data network models.
- Nov 6-10, 2002 Symposium: The age of regular variation: tales on tails; symposium on the occasion of Guus Balkema's 65th birthday. B.C.P. Jansen Instituut, University of Amsterdam. Invited talk on "Limits of on/off hierarchical product models for data transmission.
- October 27-28, 2002 Western Regional meeting of the American Math Society; Meeting number 981, University of Utah. Special session on Time Series, Heavy Tails, and Applications Invited talk: Limits of on/off hierarchical product models for data transmission.
- January 21-26, 2003 Eurandom, Eindhoven, The Netherlands: Conference on extremes of dependent variables. Two invited talks: (a) Limits of on/off hierarchical product models for data transmission. (b) The extremal dependence measure for dependent data.
- July 23-27, 2003 International Society of Bayesian Analysis, San Juan, Puerto Rico. Invited paper: Extremal Dependence and Detection of Asymptotic Independence.
- August 13-20, 2003 International Statistics Institute Annual Meeting, Berlin, Germany. Invited paper: Extremal Dependence.
- October 11-12, 2003 990th AMS Regional Meeting, Binghamton, NY: Invited paper: Extremal Dependence Measurement.
- November 17-21, 2003 UK Extremes Group, Lancaster UK: Invited lecture: Extremal Dependence and Hidden Regular Variation.
- November 30- December 06, 2003 Mathematisches Forschungsinstitut, Oberwolfach Germany: Meeting on Applied Probability. Plenary Lecture: Extremal Dependence with Applications to Data Network Modeling and Finance.
- June 9, 2004 27th Meeting of the annual Swiss Probability Seminar; featured speaker on: The extremal dependence measure, hidden regular variation and network traffic.

- May 17, 2005 Eurandom Professor Public Lecture. Eurandom, TUE. Heavy Tail Analysis, Asymptotic Independence and beyond.
- July 11-16, 2005 Smocs (Stochastic Modelling of complex systems) Conference; Daydream Island, Australia. Plenary talk: Multivariate Heavy Tails, Asymptotic Independence and Beyond.
- Dec 12–13, 2005 Workshop: The Economics & Finance of Extremes; EURANDOM, Eindhoven, The Netherlands. Invited keynote speaker: Multivariate heavy tails: Truth in advertising.
- March 20-24, 2006 Conference on Stochastics in Science in Honor of Ole E. Barndorff-Nielsen, Guanajuato, Mexico. Invited presentation: Data network models of burstiness-the RF model.
- May 15–18, 2006 2006 International Workshop on Applied Probability, Department of Statistics, University of Connecticut. Invited speaker and session organizer.
- August 13–17, 2007 5th Lévy Process Conference: Theory and Applications, Copenhagen, Denmark.
- January 22-24, 2008 SAMSI workshop: EXTREMES: Events, Models and Mathematical Theory. Invited speaker. Conditioned limit theorems: Does the story end with a bang or a wimper?.

Summer Schools & Short Courses:

- Dec 10-15, 2001 SEMSTAT: Modeling Data Networks. Gothenberg, Sweden.
- June 3–8, 2002 Finland Summer School: Heavy Tail Modeling with Application to Finance and Data Networks.
- June 2–27, 2004 University of Bern: Heavy Tails and Weak Convergence.
- May 10–June 18, 2005 Eurandom: Heavy tails–methodology and applications. Eindhoven, the Netherlands.
- August 13-17, 2007 Satellite summer school of 5th Levy Processes Conference, Sondeborg, Denmark. Applications of Levy processes.
- May 13-21, 2008 Graduate School in Statistics and Actuarial Sciences of the Institute de statistique in Louvain-la-Neuve, Belgium. Ten hour short course on Extremes and Heavy Tail methods.
- Sept 14–15, 2009 High Dimensional Extremes, Bernoulli Centre, EPFL, Lausanne Switzerland. Three hours: Multivariate extremes, hidden regular variation and conditioned limit theorems.

Editorial Work:

Associate Editor, Stochastic Processes and their Applications, 1/93–1996

Associate Editor, Stochastic Models, 1985 -

Associate Editor, The Mathematical Scientist, 1988 -

Associate Editor, Journal of Applied Probability, 1989 -

Associate Editor, Annals of Applied Probability, 1989 - 1/1994.

Associate Editor, Extremes, 2006 -

Associate book review editor for the Journal of the American Statistical Association, 1982-1986

Consultant, Birkhauser-Boston/Springer-Verlag; Editorial board of the two Birkhauser series *Progress in Probability and its Applications* and *Progress in Probability*; co-founding editor of the Springer series *Operations Research and Financial Engineering*.

Book Reviews:

STOCHASTIC CALCULUS AND STOCHASTIC MODELS, by McShane in the *Journal of the Australian Statistical Society*, Vol. 18, No. 3.

THE ASYMPTOTIC THEORY OF EXTREME ORDER STATISTICS, Galambos; *Math. Reviews*. 80b: 60040, February 1980.

STATISTICAL ANALYSIS OF COUNTING PROCESSES, M. Jacobsen, *Journal of the American Statistical Association*.

Contracts, Grants and Fellowships

Statistics–Stochastic Modelling, Principal Investigator; 8/1/75-8/31/76; NSF OIP75-14513.

Extreme values, stable laws and stochastic models, co-Principal Investigator; 2 months summer; 7/15/78-7/31/80; NSF MCS 78-00915.

Lady Davis Fellowship, 2/81-6/81. Technion, Haifa, Israel.

Extreme values, stable laws and stochastic models, 2 months summers, 1981-1984, National Science Foundation, MCS-820235.

Extreme values, stable laws and stochastic models, 2 months summers, 1985-1988, National Science Foundation.

Science Engineering Research Council Fellowship, 8/85-7/86; England.

Extreme values and stochastic models, 2 months summer, 1988-1991, National Science Foundation.

Center for Applied Mathematics Special Years on Extremes, Stable Processes and Heavy Tailed Phenomena, Cornell University, 6/88-8/90.

Nato Collaborative Research Grant (with L. de Haan), 1990. Renewed 1993–1996.

US-Israel Binational Science Foundation Grant, 1990–1993. Renewed 1993-1996.

Extreme values, heavy tailed phenomena and related topics, 2 months summer, 1991-1994, National Science Foundation.

Point process and heavy tailed modelling with application to teletraffic networks, (with David Heath and Gennady Samorodnitsky), 1992-1994, National Security Agency.

Topics in heavy tailed modelling (with Gennady Samorodnitsky), 2 months summer, 1994-1997, National Science Foundation.

Topics in heavy tailed modelling (with David Heath and Gennady Samorodnitsky), 1995-1996, National Security Agency.

Topics in heavy tailed modeling and long range dependence (with Gennady Samorodnitsky), 1997-2000, National Science Foundation.

Topics in heavy tailed modeling, long range dependence and telecommunications models (with Gennady Samorodnitsky), 1998-2000, National Security Agency.

Network Traffic Modeling and Analysis, 1999, National Science Foundation and AT&T Labs Research.

Theory and applications of heavy tails and long range dependence (with Gennady Samorodnitsky), NSF, 2002-2005; NSA 2002-2004.

Block NSF Probability grant (with Durrett, Lawler, Saloff-coste, Samorodnitsky, Protter); 5 years, 2003–2008.

Probabilistic and Statistical Modeling of Complex Systems Exhibiting Long Range Dependence and Heavy Tails (with Gennady Samorodnitsky), Army Research Office, Mathematical Sciences. Three years.

University and Departmental Service: Pre-Cornell

1972-78	Stanford: Qualifying exams committee, TV committee, Phi Beta Kappa representative, Departmental admissions committee & seminar chairman (1973-74); Chairman, Committee in Charge, University Undergraduate Mathematical Sciences Program (1974-75); departmental Master's student advisor
1978-87	Colorado State University: Special seminars chairman; College Curriculum Committee, graduate recruiting and admissions, Graduate Program Director; Executive Committee (1980-84, 86-87), Promotion and Tenure Committee; Hiring Committee (1987)

University and School of ORIE Service: Cornell

1987-97	Engineering College Library Committee
1987-88	ORIE Search Committee, ORIE Research Initiatives Committee
1988-89	Search Committee for Head of Statistics Field, ORIE Promotion Committee, ORIE Standards Committee
1989-9	Search Committee (Biometrics), ORIE Standards Committee, ORIE Curriculum Committee
1990-91	Dean's Ad Hoc Promotion Committee, ORIE Computing Committee, ORIE Tenure and Promotion Committee
1991-93	ORIE Tenure and Promotion Committee
1992-95	Associate Director for Graduate Studies for Field of OR (DGS),
1995-1998	Faculty Council/Faculty Senate
1995-6	ORIE Faculty Search Committee, ORIE New Director, ORIE Directions Committee
1996-8	Faculty Committee on Admissions and Financial Aid.
1997-8	ORIE Targeted Hiring Committee, ORIE Promotion and Tenure Committee.
1999–2004	Director, School of Operations Research and Industrial Engineering.
2001-2	Provost Committee on Economic Development in New York State and Cornell's Land Grant Mission.
2003-4	Chair, Engineering Dean's Committee for Space Planning.
2005–	Cornell Faculty Committee on Program Review.
2006–7	ORIE Manhattan oversight committee, Arts Ad Hoc committee, Engineering College ad hoc committee, ORIE promotion and tenure.
2007–8	ORIE Financial engineering guidance committee, ORIE hiring, promotion and tenure.

External Service:

1981-89	Committee for Conferences in Stochastic Processes (CCSP) of the Bernoulli Society
1982-85	Faculty advisor of Hillel/ASI, Colorado State University
1984-86	Program Committee for the First World Congress of the Bernoulli-Society in Tashkent, USSR, September 1986
1986	Institute of Mathematical Statistics Nominating Committee
1988-91	Institute of Mathematical Statistics Council.
1993	Institute of Mathematical Statistics Publications Committee
1995	NSF proposal review panel.
1996	Co-opted member of the IMS Search Committee for a new editor for ANNAP.
1997	NSF proposal review panel for probability.
1998–2001	Institute of Mathematical Statistics Fellows Committee.
2000	Institute of Mathematical Statistics ad hoc committee on electronic publishing.
2007	Institute of Mathematical Statistics textbook committee.

Doctoral Students:

Joseph Deken (August 1976)
Daren B.H. Cline (August 1983)
Rocco Ballerini (August 1985)
Edward Mulrow (August 1986)
James Marengo (August 1986)
Keizo Kinoshita (August 1988)
Rishin Roy (August 1990)
Catalin Starica (1996)
Eric Van den Berg (1998)
Fang Xue (1998)
Krishanu Maulik (2002)
Bikramjit Das (2008)
Abhimanyu Mitra (2010)
Luis Lopez Oliveros (2011)
Dave Zeber (2011)

Post-doctoral Students:

Douglas McBeth (Fall, 1991)

Marie Kratz (Fall 1993, 1994, 1995)

Henrik Hult (2004-6) (joint with G. Samorodnitsky).

Vicky Fasen (2006) (joint with G. Samorodnitsky).

Publications:

1. (1970) Limit laws for maxima of sequence of random variables defined on a Markov chain (with M. F. Neuts). *Advances in Applied Probability*, Vol. 2, pp. 323-343.
2. (1971) Asymptotic location and recurrence properties of maxima of a sequence of random variables defined on a Markov Chain. *Z. Wahrscheinlichkeitstheorie*, Vol. 18, pp. 197-217.
3. (1971) Tail equivalence and its applications. *Journal of Applied Probability*, Vol. 8, No. 1, pp. 136-156.
4. (1971) On the times of births in a linear birth process (with M. F. Neuts). *Journal of the Australian Mathematical Society*, Vol. XII, Part 4, pp. 473-473.
5. (1972) Products of distributions attracted to extreme value laws. *Journal of Applied Probability*, Vol. 8, pp. 781-793.
6. (1972) Stability of maxima of random variables defined on a Markov chain. *Advances in Applied Probability*, Vol. 4, pp. 285-295.
7. (1973) Limit laws for record values. *Journal of Stochastic Processes and Their Applications*, Vol. 1, pp. 67-82.
8. (1973) Almost sure stability of maxima (with R. J. Tomkins). *Journal of Applied Probability*, Vol. 10, pp. 387-401.
9. (1973) Records values and maxima. *Annals of Probability*, Vol. 1, pp. 650-662.
10. (1973) The structure of extremal processes (with Michael Rubinovitch). *Advances in Applied Probability*, Vol. 5, pp. 287-307.
11. (1973) Almost sure limit points of record values (with Laurens de Haan). *Journal of Applied Probability*, Vol. 10, pp. 528-542.
12. (1973) Extremal processes and record value times. *Journal of Applied Probability*, Vol. 10, pp. 864-868.
13. (1974) Inverses of extremal processes. *Advances in Applied Probability*, Vol. 6, pp. 392-406.

14. (1975) Weak convergence to extremal processes. *Annals of Probability*, Vol. 3, pp. 951-960.
15. (1975) The behavior near the original of the supremum functional in a process with stationary, independent increments (with M. Rubinovitch). *Journal of Applied Probability*, Vol. 12, pp. 159-160.
16. (1976) The stationary distribution and first exit probabilities of a storage process with general release rule (with J. M. Harrison). *Mathematics of Operations Research*, Vol. 1, pp. 347-358.
17. (1976) An extremal decomposition of a process with stationary, independent increments. Technical Report 79, Department of Statistics, Stanford University.
18. (1977) Max-infinite divisibility (with A. A. Balkema). *Journal of Applied Probability*, Vol. 14, pp. 309-319.
19. (1977) Limit theory for multivariate sample extremes (with L. deHaan). *Z. Wahrscheinlichkeitstheorie*, Vol.40, pp. 317-337.
20. (1977) Extreme values of independent stochastic processes (with B. M. Brown). *Journal of Applied Probability*, Vol. 14, pp. 732-739.
21. (1977) Weak convergence with random indices (with R. Durrett). *Journal of Stochastic Processes and Their Applications*, Vol. 5, pp. 213-220.
22. (1978) Recurrence classification of risk and storage processes (with J. M. Harrison). *Mathematics of Operations Research*, Vol. 3, pp. 57-66.
23. (1978) Functional limit theorems for dependent variables (with R. Durrett). *Annals of Probability*, Vol. 6, pp. 829-846.
24. (1978) Derivatives of regularly varying functions in R^d and domains of attraction of stable distributions (with L. deHaan). *Journal of Stochastic Processes and Their Applications*, Vol. 8, pp. 349-355.
25. (1978) Regularly varying tail probabilities and point processes. Technical Report No. 4, Department of Statistics, Colorado State University.
26. (1979) A bivariate stable characterization and domains of attraction (with P. Greenwood). *Journal of Multivariate Analysis*, Vol. 9, pp. 206-221.
27. (1979) Conjugate II-variation and process inversion (with L. de Haan). *Annals of Probability*, Vol. 7, pp. 1028-1035.
28. (1980) A simple asymptotic estimate for the index of a stable distribution (with L. de Haan). *Journal of the Royal Statistical Society. Series B*, Vol. 42, Part 1.
29. (1981) On the observation closest to the origin (with L. de Haan). *Journal of Stochastic Processes and their Applications*, Vol. 11, pp. 301-308.

30. (1982) Local limit theorems for sample extremes (with L. de Haan). *Annals of Probability*, Vol. 10, pp. 396-414.
31. (1982) Storage processes with general release rule and additive inputs (with P. J. Brockwell and R. Tweedie). *Advances in Applied Probability*, Vol. 14, pp. 392-433.
32. (1982) Extremal processes. Review: *Encyclopedia of Statistical Sciences*, Wiley, New York.
33. (1982) Weak convergence and range analysis for dams with Markovian input rate (with P. J. Brockwell and N. Pacheco-Santiago). *Journal of Applied Probability*, Vol. 19, pp. 272-289.
34. (1982) Birth, immigration and catastrophe processes (with P. J. Brockwell and J. M. Gani). *Advances in Applied Probability*, Vol. 14, pp. 709-731.
35. (1982) Limit theory for moving averages of random variables with regularly varying tail probabilities (with R. Davis). *Annals of Probability*, Vol. 13, pp. 179-195.
36. (1983) Catastrophe processes with continuous state space (with P. J. Brockwell and J. M. Gani). *Australian Journal of Statistics*, Vol. 25, pp. 208-226.
37. Rank tests for multivariate trend (with B. M. Brown). *Australian Journal of Statistics*, Vol. 26, pp. 58-67.
38. (1984) Asymptotically balanced functions and stochastic compactness of sample extremes (with L. de Haan). *Annals of Probability*, Vol. 12, pp. 588-608.
39. (1984) Stochastic compactness and point processes (with L. de Haan). *Journal of the Australian Mathematical Society*, Vol. 37, pp. 307-316.
40. (1984) Domains of attraction and regular variation in R^d (with L. de Haan and E. Omey). *Journal of Multivariate Analysis*, Vol. 14, pp. 17-33.
41. (1984) Limiting behavior of sums and the term of maximum modulus (with R. A. Maller). *Proceedings of the London Mathematical Society*, Vol. 49, pp. 385-422.
42. (1984) Tail estimates motivated by extreme value theory (with R. Davis). *Annals of Statistics*, Vol. 12, pp. 1467-1487.
43. (1985) Records from improving populations (with Rocco Ballerini). *Journal of Applied Probability*, Vol. 22, pp. 487-502.
44. (1985) More limit theory for the sample correlation function of moving averages (with R. Davis). *Stochastic Processes and Their Applications*, Vol. 20, pp. 257-279.
45. (1986) Limit theory for sample covariances and correlation functions (with R. Davis). *Annals of Statistics*, Vol. 14, pp. 533-558.
46. (1986) Uniform rates of convergence to extreme value distributions. *Probability and Statistics: Essays in Honor of Franklin Graybill*. North Holland.

47. (1986) Point processes, regular variation and weak convergences. *Advances in Applied Probability*, Vol. 18, pp. 66-138.
48. (1986) Extremal properties of a class of moving averages (with R. Davis, J. Marengo). *Proceedings of the 45th Session of the ISI*, 26.2, pp. 1-14.
49. (1987) Records in the presence of a linear trend (with R. Ballerini). *Advances in Applied Probability*, Vol. 19, pp. 801-828.
50. (1987) Embedding sequences of successive maxima in extremal process, with applications (with R. Ballerini). *Journal of Applied Probability*, Vol. 24, pp. 827-837.
51. (1987) On regular variation of probability densities (with L. de Haan). *Stochastic Processes and their Applications*, Vol. 25, pp. 83-95.
52. (1987) The convex hull of a random sample (with D. Davis and E. Mulrow). *Stochastic Models*. Vol. 3, pp. 1-29.
53. (1988) Association and multivariate extreme value distributions. *Gani Festschrift: Studies in Statistical Modelling and Statistical Science*, ed. C.C. Heyde, pp. 261-271, Statistical Society of Australia.
54. (1988) Almost sure limit sets of random samples in \mathbf{R}^d (with E. Mulrow and R. Davis). *Advances in Applied Probability*, Vol. 20, pp. 573-599.
55. (1988) Distributions that are both subexponential and in a domain of attraction of an extreme value distribution (with C. M. Goldie). *Advances in Applied Probability*, Vol. 20, pp. 706-718.
56. (1988) Subexponential distributions tails and point processes (with C.M. Goldie). *Stochastic Models*, 4, 361-372.
57. (1988) Multivariate records and shape. *Proceedings of Oberwolfach Conference on Extreme Value Theory* (with Keizo Kinoshita). Lecture Notes in Statistics #51, ed. J. Husler and R. Reiss, pp. 222-233.
58. (1988) Extremes of moving averages of random variables from the domain of the double exponential distribution (with R. Davis). *Stochastic Processes and Their Applications*, Vol. 30, pp. 41-68.
59. (1989) Extremal behaviour of solutions to a stochastic difference equation with applications to arch-processes (with L. de Haan, H. Rootzen, C. de Vries). *Stochastic Processes and Their Applications*, Vol. 32, pp. 213-224.
60. (1989) Quantifying closeness of distributions of sums and maxima when tails are fat (with Eric Willekens). *Stochastic Processes and Their Applications*, Vol. 33, pp. 201-216.
61. (1989) Basic properties and prediction of max-arma processes (with Richard Davis). *Advances in Applied Probability*, Vol. 21, pp. 781-803.

62. (1989) Records in a partially ordered set (with C. M. Goldie). *Annals of Probability*, Vol. 17, pp. 678-699.
63. (1990) Multivariate extremal processes, leader processes and dynamic choice models (with Rishin Roy). *Advances in Applied Probability*, Vol. 22, pp. 309-331.
64. (1990) Leader and maximum independence for a class of discrete choice models (with R. Roy). *Economics Letters*, Vol. 33, pp. 259-263.
65. (1990) Moving averages of random series with random coefficients and random coefficient autoregressive models (with E. Willekens). *Stochastic Models*, Vol. 7, 511-526.
66. (1991) Extremes of moving averages of random variables with finite endpoint (with R. Davis). *Annals of Probability*, Vol. 19, pp. 312-328.
67. (1991) Convergence of scaled random samples in R^d (with Keizo Kinoshita). *Annals of Probability*, 19, 1640-1663.
68. (1991) Point processes and Tauberian theory. *The Mathematical Scientist*, Vol. 16, 83-106.
69. (1991) Max-geometric infinite divisibility and stability (with Z. Rachev). *Stochastic Models*, 7, 191-219.
70. (1991) Random USC functions, max-stable processes and continuous choice (with R. Roy). *Annals of Applied Probability*, 1, 267-292.
71. (1992) On min-stable horse races with infinitely many horses. *Mathematical Social Sciences*, Vol. 23, 119-145.
72. (1993) Prediction of stationary max-stable processes (with R. Davis). *Annals of Applied Probability*, 3, 497-525.
73. (1992) Multivariate subexponential distributions (with D. Cline). *Stochastic Processes and Their Applications*, 42, 49-72.
74. (1992) Estimation for autoregressive processes with positive innovations (with P. Feigin). *Stochastic Models*, 8, 479-498.
75. (1993) Estimating the home range (with L. de Haan). *J. Appl. Probability*, 31, 700-720.
76. (1993) Densities with Gaussian tails (with A. Balkema and C. Kluppelberg). *Proc. London Math. Soc.*, (3) 66, 568-588.
77. (1994) Super-extremal processes, max-stability and dynamic continuous choice (with R. Roy). *Annals of Applied Probability*, 4, 791-811.
78. (1994) Super-extremal processes and the arg-max process (with R. Roy). *J. Appl. Probability*, 31, 958-978.

79. (1994) Estimating the limit distribution of multivariate extremes (with L. de Haan). *Stochastic Models*, 9, 275–309 .
80. (1994) Extreme values and choice theory (with R. Roy). *Extreme Value Theory and Applications*, edited by Galambos, J., Lechner, J., Simiu, E. 319–336. Kluwer Academic Publishers, Dordrecht, Holland.
81. (1994) Random transformations for Poisson processes and sup-integral processes (with L. de Haan). *Stochastic Models*, 10(1), 205–221.
82. (1994) Stability of random sets generated by multivariate samples (with D. McBeth). *Stochastic Models*, 10, 549–574.
83. (1994) Limit distributions for linear programming time series estimators (with P. D. Feigin). *Stochastic Processes and their Applications*, 51, 135–166.
84. (1994) Crossings of max-stable processes (with R. Davis). *Journal of Applied Probability*, 31, 130–138.
85. (1995) Consistency of Hill’s estimator for dependent data (with C. Starica). *Journal of Applied Probability*, 32, 139–167.
86. (1995) Testing for Independence in Heavy Tailed and Positive Innovation Time Series (with P. Feigin and C. Starica). *Stochastic Models*, 11, 587–613.
87. (1995) Many Multivariate Records (with C.M. Goldie). *Stochastic Processes and their Applications*, 59, No. 2, 185–216.
88. (1996) Second order regular variation, convolution and the central limit theorem (with J. Geluk, L. de Haan and C. Stărică). *Stochastic Processes and their Applications*, 33, 128–239.
89. (1996) Second order regular variation and rates of convergence in extreme value theory (with L. de Haan). *Ann. Probability*, 24, 97–124.
90. (1996) Ordered Independent Scattering (with C.M. Goldie). *Stochastic Models*, 12, 523–528.
91. (1996) The qq-estimator and heavy tails (with Marie Kratz). *Stochastic Models*, 12, 699–724.
92. (1996) Parameter Estimation for Moving Averages with Positive Innovations (with Paul D. Feigin, Marie F. Kratz). *Annals of Applied Probability*, 6, 1157–1190.
93. (1996) Limit theory for bilinear processes with heavy tailed noise (with Richard Davis). *Ann. Applied Probability*, 6, 1191–1210.
94. (1997) Heavy tail modelling and teletraffic data. *Annals of Statistics*, 25 1805–1869.
95. (1997) Asymptotic behavior of Hill’s estimator for autoregressive data (with C. Stărică). *Stochastic Models*, 13, 703–723.

96. (1997) Smoothing the Hill estimator (with Cătălin Stărică). *Advances in Applied Probability*, 29, 271–293.
97. (1997) Performance decay in a single server exponential queueing model with long range dependence (with Gennady Samorodnitsky). *Operations Research*, 45, 235–243.
98. (1997) Discussion of the Danish data on large fire insurance losses. *The Astin Bulletin*, 27, 139–151.
99. (1997) Patterns of buffer overflow in a class of queues with long memory in the input stream (with D. Heath and G. Samorodnitsky). *Annals of Applied Probability*, 7, 1021–1057.
100. (1997) Linear Programming Estimators and Bootstrapping for Heavy Tailed Phenomena (with Paul D. Feigin). *Advances in Applied Probability*, 29, 759–805.
101. (1998) On asymptotic normality of the Hill estimator (with L. de Haan). *Stochastic Models*, 14, 849–867.
102. (1998) Heavy tails and long range dependence in on/off processes and associated fluid models (with D. Heath and G. Samorodnitsky). *Mathematics of Operations Research*, 23, 145–165.
103. (1998) Why non-linearities can ruin the heavy tailed modeler’s day. A Users guide to Heavy Tails: Statistical Techniques for Analyzing Heavy Tailed Distribution and Processes. Ed: R. Adler, R. Feldman, M. Taqqu. Birkhauser, Boston.
104. (1998) Living on the edge (with P. Embrechts and G. Samorodnitsky). *Risk Magazine*, 11, 96–100.
105. (1998) Sample correlations of infinite variance time series models: an empirical and theoretical study (with J. Cohen, G. Samorodnitsky). *Journal of Applied Mathematics and Stochastic Analysis*, 11, 255–282.
106. (1998) Heavy tailed hidden semi-Markov models (with A. Subramanian). *Stochastic Models*, 14, 319–334.
107. (1998) Tail index estimation for dependent data (with C. Stărică). *The Annals of Applied Probability*, 8, 1156–1183.
108. (1999) Limit distributions for exponential families (with A. Balkema and C. Klüppelberg). *Bernoulli*, 5, 951–968.
109. (1998) Smoothing the moment estimator of the extreme value parameter (with C. Stărică). *Extremes*, 1:3, 263–293.
110. (1999) Pitfalls of fitting autoregressive models for heavy tailed times series (with P. Feigin). *Extremes*, 1, 391–422.
111. (1999) Activity periods of an infinite server queue and performance of certain heavy tailed fluid queues (with G. Samorodnitsky). *Queueing Systems*, 33, 43–71.

112. (1999) How system performance is affected by the interplay of averages in a fluid queue with long range dependence induced by heavy tails (with D. Heath and G. Samorodnitsky) *The Annals of Applied Probability*, 9, 352-375.
113. (1999) Extreme value theory as a risk management tool (with Embrechts, P. and Samorodnitsky, G.). *North American Actuarial Journal*, volume 3, number 2, 30-41.
114. (2000) How to make a Hill plot (with Holger Drees and L. de Haan). *Annals of Statistics*, 28 (1), 254-274.
115. (2000) Weak Convergence of high-speed network traffic models (with E. van den Berg). *Journal of Applied Probability*, 37 (2), 575-597.
116. (2000) A heavy traffic limit theorem for workload processes with heavy tailed service requirements (with G. Samorodnitsky). *Management Science*, 46, 1236-1248.
117. (2001) Steady state distribution of the buffer content for M/G/ ∞ input fluid queues (with G. Samorodnitsky). *Bernoulli*, 7 (2), 191-210.
118. (2000) A test for nonlinearity of time series with infinite variance. (With E. van den Berg). *Extremes*, 3 (4), 145-172.
119. (1999) How misleading can sample acf's of stable ma's be? (Very!) (with G. Samorodnitsky and Fang Xue). *Annals of Applied Probability*, 9 (3), 797-817.
120. (1999) Infinite source Poisson models with heavy tailed transmission times. Survey for The American University Conference Proceedings: Heavy tails and Applications. Conference proceedings published on CD and edited by John Nolan and A. Swami.
121. (2000) Sample correlation behavior for the heavy tailed general bilinear process (with Eric van den Berg). *Stochastic Models*, 16 (2), 233-258.
122. (2000) Growth rates of sample covariances of stationary symmetric α -stable processes associated with null recurrent Markov chains (with G. Samorodnitsky and F. Xue). *Stochastic Processes and their Applications*, 85 (2), 321-339.
123. (2000) Self-similar communication models and very heavy tails (with H. Rootzén). *Annals of Applied Probability*, 10, 753-778.
124. (2000) Fluid queues, on/off processes and teletraffic modeling with highly variable and correlated inputs (with G. Samorodnitsky). In *SELF-SIMILAR NETWORK TRAFFIC AND PERFORMANCE EVALUATION*, editors: A. Erramilli, W. Willinger and C. Park, 171-192.
125. (2000) The maximum of the periodogram for a stable sequence (with T. Mikosch and G. Samorodnitsky). *Annals of Probability*, 28, 885-908.
126. (2001) Stability for multivariate exponential families (with A. Balkema, C. Klüppelberg). *Proceedings of the Seminar on Stability Problems for Stochastic Models, Part III (Nalpolhkeczow)*, *Journal of Mathematical Sciences (New York)*, volume 106(2), 2777-2791.

127. (2002) A single channel on/off model with TCP-like control (with M. Borkovec, A. Dasgupta and G. Samorodnitsky). *Stochastic Models*, 18(3), 333–367.
128. (2002) Is network traffic approximated by stable Lévy motion or fractional brownian motion? (with T. Mikosch, A.W. Stegeman and H. Rootzén). *Annals of Applied Probability*, 12(1), 23–68.
129. (2002) Asymptotic independence and a network traffic model (with K. Maulik and H. Rootzén). *Journal of Applied Probability*, 39(4), 671–699.
130. (2002) Hidden regular variation, second order regular variation and asymptotic independence. *Extremes*, 5(4), 303–336.
131. (2003) Domains of attraction for exponential families (with A. A. Balkema and C. Klüppelberg, *Stochastic Processes and their Applications*, 107(1), 83–103.
132. (2003) Modeling Data Networks. In: *SemStat: Seminaire Europeen de Statistique, Extreme Values in Finance, Telecommunications, and the Environment*, 287–372, editors B. Finkenstadt and H. Rootzen, Chapman-Hall, London.
133. (2003) Small and large time scale analysis of a network traffic model (with K. Maulik). *Queueing Systems*, 43(3), 221–250.
134. (2003) Empirical Testing of the infinite source Poisson data traffic model (with C.A. Guerin, H. Nyberg, O. Perrin, H. Rootzén and C. Stărică). *Stochastic Models*, 19(2), 151–200.
135. (2003) Limits of On/Off Hierarchical Product Models for Data Transmission (with G. Samorodnitsky). *Annals of Applied Probability*, 13(4), 1355–1398.
136. (2003) Wavelet Analysis of Conservative Cascades (with A. Gilbert, G. Samorodnitsky and W. Willinger). *Bernoulli*, 9(1), 97–135.
137. (2003) The self-similar and multifractal nature of a network traffic model (with K. Maulik). *Stochastic Models*, 19(4), 549–577.
138. (2004) The extremal dependence measure and asymptotic independence. *Stochastic Models*, 20 (2), 205–227.
139. (2004) On the foundation of multivariate heavy tail analysis. In *Stochastic Methods and their Applications*, Publisher: Applied Probability Trust, J. Applied Probability Special Volume 41A; C.C. Heyde festschrift.
140. (2004) Point processes associated with stationary stable processes (with G. Samorodnitsky). *Stochastic Processes and their Applications*, 114(2), 191–209.
141. (2005) Extremal dependence: Internet traffic applications (with F. Hernandez Campos, J. S. Marron, Cheolwoo Park, K. Jeffay). *Stochastic Models*, 21(1).
142. (2005) Characterizations and examples of hidden regular variation (with K. Maulik). *Extremes*, 7(1), 31–67.

143. (2005) Hidden regular variation and the rank transform (with J. Heffernan). *Advances in Applied Probability*, 37, 393–414.
144. (2006) Activity rates with very heavy tails (with T. Mikosch). *Stochastic Processes and their Applications*, 115, 131–155.
145. (2006) Data network models of burstiness (with B. D’Auria). *Advances in Applied Probability*, 38(2), 373–404.
146. (2007) Limit laws for random vectors with an extreme component (with J. Heffernan). *Annals of Applied Probability*, 17(2), 537–571.
147. (2008) The influence of dependence on data network models (with B. D’Auria). *Advances in Applied Probability* 40(1), 60–94.
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150. (2008) Multivariate regular variation on cones: application to extreme values, hidden regular variation and conditioned limit laws. *Stochastics: An International J. of Prob. and Stochastic Processes*, 80(2), 269–298.
151. (2008) The Pareto copula, aggregation of risks and the emperor’s socks (with C. Klüppelberg). *Journal of Applied Probability*, 45(1), 1–18.
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Books:

- 1987 *Extreme Values, Regular Variation and Point Processes*. Springer-Verlag, New York. Second printing 2008.
- 1992 *Adventures in Stochastic Processes*. Birkhauser, Boston.
- 1998 *A Probability Path*. Birkhauser, Boston.

2001 Lévy Processes, Theory and Applications (volume edited with O. Barndorff-Nielsen, T. Mikosch). Birkhauser, Boston.

2007 Heavy Tail Phenomena: Probabilistic and Statistical Modeling. Springer-Verlag.

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