

## VITA: SIDNEY RESNICK



Lee Teng-Hui Professor in Engineering  
School of Operations Research and Information Engineering  
Cornell University, Rhodes Hall 214,  
Ithaca NY 14853  
607 255 1210 (w), 607 257 7833 (H), 607  
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

### Professional Experience:

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| 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                                       |
| July 2019                     | Lee Teng-Hui Professor in Engineering Emeritus   |

### Membership in Professional Societies:

Institute of Mathematical Statistics  
INFORMS Applied Probability Society

## Honors:

Fellow of the Institute of Mathematical Statistics

Lady Davis Fellowship, Israel 1981

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

U.K. Science and Engineering Research Council Fellow, 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.

Designated *Distinguished Adjunct Professor*, Technical University of Munich, May 2012.

## Selected Special Appointments:

July 1, 1971–  
Oct. 1, 1971      Research associate, 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      Research associate, Erasmus University, Rotterdam, Holland

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

Feb. 1, 1982–  
July 31, 1982      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      Fellow, ETH, Department of Mathematics, Zurich, Switzerland.

January, 1996      Research associate, Erasmus University, Rotterdam, Holland.

July 10-24, 1997; Fall 1999	Researcher, Department of Statistics, University of North Carolina, Chapel Hill.
Spring 1999	Scientist, AT&T Labs Research, Florham Park, NJ.
Summer 2004	Lecturer, University of Bern, Switzerland for special short course.
May 7-June 18, 2005	Eurandom Professor, Eurandom, Eindhoven, the Netherlands. Pre- sentation 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: Joint: 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, Research Triangle Park, North Carolina. Senior faculty for <i>Risk Analysis, Extreme Events and Decision Theory</i> .
May 2012	Risk and Insurance, Technical University of Munich.
June 2009, April 2017	Two extended visits to Risklab, ETH Zurich.
2015–2019	Five month-long February visits to Australian National University, College of Business and Economics, Research School of Finance and Applied Statistics.
Jan 20–26, 2019	Singapore University of Technology and Design, Engineering Systems and Design.
Ap 27–May 17 2019	Bocconi University, Dept of Decision Sciences.
Sept 9-27, 2019	Dept of Mathematical Statistics, KTH Royal Institute of Technology, Stockholm.

### Selected Invited 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.
- 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 30 - June 1, 1984      Inference for Stochastic Processes, Lexington, Kentucky. Invited lecture: Tail Estimates Motivated by Extreme Value Theory.
- 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 26-28, 1988 Invited lecturer, 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, American Math Society. Title: Densities with Gaussian Tails.
- 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.
- Mar 20-22, 1995 Invited lecture, 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.
- June 10, 1997 Invited speaker, Portuguese Statistical Society Annual Meeting: Heavy tailed modeling—What works and what doesn't.
- June 30, 1997 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.
- 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.
- 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.
- August 13-17, 2007 5th Lévy Process Conference: Theory and Applications, Copenhagen, Denmark.



- January 22-24, 2008 SAMSU workshop, North Carolina: EXTREMES: Events, Models and Mathematical Theory. Invited speaker. Conditioned limit theorems: Does the story end with a bang or a wimper?
- June 23–26, 2009 6th International Conference on Extreme Value Analysis June 22-26, 2009 Fort Collins, Colorado USA. Invited talk: The Conditional Extreme Value Model and Data Network Sessions.
- January 11-15, 2010 Newton Institute for Mathematical Sciences, Cambridge UK: workshop on Stochastic Processes in Communication Sciences. Invited talk: Modeling Data Network Sessions.
- Mar 2–5, 2010 9th German Open Conference on Probability and Statistics. Invited talk: Modeling Data Network Sessions.
- July 6–8, 2011 Informs Applied Probability Society Conference, Stockholm Sweden. 90 minute Tutorial: Modeling Data Network Sessions: Superimposing Streams and Peak Rate Covariates.
- May 31 - June 3, 2012 7th Conference in Actuarial Science and Finance, Samos, Greece. Invited talk in session: *Modeling Rare Events, Extremes and Dependence*. Title: Living on the multivariate edge: Detecting hidden risks.
- Mar 21–23, 2016 Workshop on Extreme Value and Time Series Analysis, Karlsruhe Institute of Technology, Invited talk: Multivariate Regular Variation of In- and Out-Degree in a Network Growth Model.
- May 2–6, 2016 Fields Institute University of Toronto Workshop on Dependence, Stability and Extremes. Invited talk: Multivariate regular variation of in- and out-degree in a network growth model.
- Dec 12–16, 2016 Newton Institute, Cambridge University UK; Workshop on Dynamic Networks. Invited talk: Multivariate Power Laws in a Preferential Attachment Network Model; Model Calibration.
- June 20-22, 2017 Workshop on Heavy Tails and Long-Range Dependence, University of Paris VI. Invited talk: Fitting Preferential Attachment Models.
- June 17–22, 2018 Banff International Research Station for Mathematical Innovation and Discovery (BIRS), and Casa Matemática Oaxaca (CMO). Self-Similarity, Long-Range Dependence and Extremes. Invited talk: Are Extreme Value Estimation Methods Useful for Network Data?
- July 28-Aug 2 2018 Joint Statistics Meeting, Vancouver. Section on Risk Analysis, Invited talk: Fitting the Linear Preferential Attachment Model.
- July 3-5, 2019 Informs Applied Society, Brisbane, Australia. Keynote, Marcel Neuts Lecture: Why model the growth of networks?

- July 27-31, 2019 Joint Statistics Meeting, Denver Colorado. Invited talk: Why model the growth of social networks?
- Dec 9-13, 2019 Eurandom Workshop on Heavy Tails, Eindhoven, NL. Invited talk: Trimming a Lévy Subordinator.
- Oct 23-27, 2023 New Perspectives in the Theory of Extreme Values, Dubrovnik, Croatia. Invited talk:  $2RV+HRV$  and Testing for Strong VS Full Dependence.

### 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.
- May 9–June 30 2007 Technical University Munich. Multivariate regular variation and extreme value problems in probability theory and statistics.
- 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.
- May 21-25 2009 10 hour short course on *Extremes and Heavy Tail Analysis with Applications to Data Network*. Universidad Carlos III de Madrid, Leganes - Madrid, Spain.
- June 23-25, 2015 Master Class: Mathematical Foundations of Heavy Tailed Analysis: Probabilistic, Analytical and Statistical Models of Heavy Tailed Phenomena in one or more dimensions. EU supported nine hour short course at University of Copenhagen.
- Ap 27–May 17 2019 Bocconi University, Dept of Decision Sciences. Heavy tail analysis. 10 hours.
- Jan 8-27, 2023 University of North Carolina, Chapel Hill, Dept of Statistics and OR. Modeling growth of social networks and multivariate heavy tails. 8 hours.

## Editorial Work:

Associate editor:

- Stochastic Processes and their Applications, 01/93–1996, 2008–2012.
- Stochastic Models, 1985–2015.
- The Mathematical Scientist, 1988–2016.
- Journal of Applied Probability, 1989 -2008.
- Annals of Applied Probability, 1989 –1994.
- Extremes, 2006–2013.
- Associate book review editor for the Journal of the American Statistical Association, 1982-1986
- Birkhauser-Boston/Springer-Verlag; Editorial board of the two Birkhauser series *Progress in Probability and its Applications* and *Progress in Probability*, 1992–2021.
- Co-founding editor of the Springer series *Operations Research and Financial Engineering*.

## 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. Renewed for three years, June 2010.

NSA: Extremes Driven Phenomena: Applications to Risk and Network Science, 2 years 2010.

MURI: Multi-University Research Initiative, ARO: Multivariate Heavy Tail Phenomena: Modeling, Diagnostics, and Applications in Tactical Operations, 5 years, 9 PI's, August 2012–2017. Extended through August 2018.

## University and School of ORIE Service: Cornell

1987-1997	Engineering College Library Committee
1987-1988	ORIE Search Committee, ORIE Research Initiatives Committee
1988-1989	Search Committee for Head of Statistics Field, ORIE Promotion Committee, ORIE Standards Committee
1989-1990	Search Committee (Biometrics), ORIE Standards Committee, ORIE Curriculum Committee
1990-1991	Dean's Ad Hoc Promotion Committee, ORIE Computing Committee, ORIE Tenure and Promotion Committee
1991-1993	ORIE Tenure and Promotion Committee
1992-1995	Associate Director for Graduate Studies for Field of OR (DGS),
1995-1998, 2015-2019	Faculty Senate
1995-1996	ORIE Faculty Search Committee, ORIE New Director, ORIE Directions Committee
1996-1998	Faculty Committee on Admissions and Financial Aid.
1997-1998	ORIE Targeted Hiring Committee, ORIE Promotion and Tenure Committee.
1999-2004	Director, School of Operations Research and Industrial Engineering.
2001-2002	Provost Committee on Economic Development in New York State and Cornell's Land Grant Mission.
2003-2004	Chair, Engineering Dean's Committee for Space Planning.
2005-2009	Provost Committee on Program Review.
2006-2007	ORIE Manhattan oversight committee, Arts Ad Hoc committee, Engineering College ad hoc committee, ORIE promotion and tenure.
2007-2008	ORIE Financial Engineering guidance committee, ORIE hiring, promotion and tenure.
2008-2009	ORIE executive committee.
2010-2011	ORIE hiring, promotion and tenure, executive.
2011-2012	Theta Tau faculty advisor.
2013-2014	Graduate admissions.
2013-2018	Promotion and tenure.

## External Service:

1981-1989	Committee for Conferences in Stochastic Processes (CCSP) of the Bernoulli Society
1982-1985	Faculty advisor of Hillel/ASI, Colorado State University
1984-1986	Program Committee for the First World Congress of the Bernoulli-Society in Tashkent, USSR, September 1986
1986	Institute of Mathematical Statistics Nominating Committee
1988-1991	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.
2016	Program Review: University of California, Berkeley (March 14-16).

## 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 (2011)  
Luis Lopez Oliveros (2011)  
Dave Zeber (2012)  
Joyjit Roy (ABT)  
Tiandong Wang (2019)

## 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).

Jakko Lehtomaa (2017-18).

## 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.
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