Paul Embrechts

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(ETH stands for Swiss Federal Institute of Technology)

Personal

Born: 3 February 1953 in Schoten, Belgium. Married, with 3 children.
Citizenship: Belgium

Education

- Diploma ("Licentiaat" in mathematics), University of Antwerp, 1975 (Summa Cum Laude)
- Dr. Sc. (mathematics), Catholic University of Leuven, 1979 (Summa Cum Laude)

Employment

- University of Leuven, Department of Mathematics: 1975–1983 Research Assistant
- Imperial College (University of London), Department of Mathematics: 1983–1985 Lecturer in Statistics
- University of Limburg at Diepenbeek, Department of Mathematics: 1985–1989 Lecturer ("Docent") in Statistics
- ETH Zurich, Department of Mathematics: 1989–present Professor of Mathematics
- Visiting Positions: University of London, 1979–1980, Summer 1982; Cornell University 1995–1996
- Visiting Professor of ESSEC–Paris, Université Louis Pasteur Strasbourg
- Visiting Professor (Cattedra Galileiana 1999) Scuola Normale Superiore, Pisa

Honors

- Laureate of the Belgian Royal Academy of Sciences (1983)
- Laureate of the Belgian Work Against Cancer (1988)
- Fellow of the Institute of Mathematical Statistics (1995)

Doctoral Students

Angelos Dassios (1985, co–supervisor) Insurance, storage and point processes: an approach via piecewise deterministic Markov processes (Currently Lecturer at the London School of Economics)

Claudia Klüppelberg (1988, co–supervisor) Subexponential distributions (Currently Professor of Mathematical Statistics at the Technical University of Munich)

Hanspeter Schmidli (1992) A general insurance risk model (Currently Assistant Professor at the University of Aarhus)

Stefan Zumsteg (1995) Non–cooperative aspects of cooperative game theory and related computational problems

Klemens Binswanger (1997) Rare events and insurance

Hansjörg Furrer (1997) Risk theory and heavy–tailed Lévy processes

Anja Göing (1998) Parameter estimation and Bessel processes in financial models and numerical analysis of Hamiltonian systems

Stéphane Moine (1998) Some new developments in asset liability optimization

Research interests

Applied probability and stochastic processes. Insurance risk theory. Securitization of risk. Modeling of extremal events. Risk management in insurance and finance

Editorial Board (Current Appointments)

- Editor of *ASTIN* (Actuarial Studies In Non–Life insurance) *Bulletin*
- Advisory Editor of *Finance and Stochastics*
- Associate Editor of the *Applied Probability Journals*, *Insurance: Mathematics and Economics*, *JASA* (Book Reviews)

Relevant Professional Activities

- Cofounder of RiskLab: a pre–competitive research laboratory on Risk Management at the ETH funded by the Credit Suisse Group, Union Bank of Switzerland, Swiss Bank Corporation and the Swiss Reinsurance Company

- Member of the Board of Directors of the Julius Baer Holding AG and Bank Julius Baer
- External Mathematical Auditor for Swiss Re Life
- Member of the Board of the Swiss Society of Actuaries
- I have done numerous consultancies on issues related to finance and insurance for the Swiss Government and various banks and insurance companies worldwide
- I have (co–)organised numerous international scientific meetings in the realm of insurance and finance and have been an invited speaker at such meetings on many occasions. Recent examples are:
  - Main invited speaker at the CAMAR Fall Meeting (Casualty Actuarial Society), Phildelphia, December 4, 1996
  - Invited speaker at the Meeting on Risk Management in Insurance Firms, The Wharton Financial Institutions Center, Phildelphia, May 15–17, 1996
  - Invited speaker at the 3rd Annual US Conference, RISK'97, Chicago, June 5, 1997
  - Invited speaker at the ASTIN Session Modelling Catastrophic Risk, Cairns, Australia, August 10–13, 1997
  - Invited member of the expert panel on Risk Measurement and Management: A Financial Engineering Roundtable, The Wharton Financial Institutions Center, Phildelphia, March 5–6, 1998

Selected Publications

1. Estimates for the probability of ruin with special emphasis on the possibility of large claims, *Insurance Math. Econom.* **1** (1982) 55–72 (With N. Veraverbeke)
2. Martingales and insurance risk, *Comm. Statist. Stochastic Models* **5** (1989) 181–217 (With A. Dassios)
3. Some applications of the fast Fourier transform algorithm in insurance mathematics *Statist. Neerlandica* **47** (1993) 59–75 (With R. Grübel and S. Pitts)
4. Ruin estimation for a general insurance risk model *Adv. Appl. Prob.* **26** (1994) 404–422 (With H.P. Schmidli)
5. *Modelling Extremal Events for Insurance and Finance*, Springer–Verlag, Berlin, 1997 (With C. Klüppelberg and T. Mikosch)