

Pedagogical seminar

The Modeling of Extremes: From Theory to Practice and Back

by Professor Dr. Paul Embrechts

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October 12, 2016 (Wednesday)

5:30 p.m. - 7:00 p.m.

T3, Meng Wah Complex, HKU

About the talk

In this talk I will give a brief historical introduction to the developments leading up to modern Extreme Value Theory (EVT). Starting from some of the earliest discussions related to the probabilistic modeling of extremes, I will also highlight some of the more recent developments (mainly on the statistical side) through the so-called Peaks Over Threshold method and exemplify EVT methodology for a real data set from insurance. I will end the presentation with an outlook of some of the more practical aspects facing EVT in many of its current applications. A key theme in this concluding discussion will concern the communication of statistical estimates related to rare events. A textbook related to EVT is: P. Embrechts, C. Klueppelberg and T. Mikosch (1997) *The Modelling of Extreme Events for Insurance and Finance*, Springer. For a shorter presentation relevant for risk management applications in Insurance and Finance, see A.J. McNeil, R. Frey and P. Embrechts (2015) *Quantitative Risk Management: Concepts, Techniques and Tools*, 2nd. Ed, Princeton University Press.

About the speaker

Since 1989, Paul Embrechts is Professor of Mathematics at the ETH Zurich specialising in actuarial/financial mathematics and quantitative risk management. He is a founding member and the current director of RiskLab. Previous academic positions include the Universities of Leuven, Limburg and London (Imperial College). Dr. Embrechts has held visiting appointments including at Paris 1 – La Sorbonne, ESSEC Paris, the Scuola Normale in Pisa (Cattedra Galileiana), the London School of Economics (Centennial Professor of Finance) and has an Honorary Doctorate from the University of Waterloo, Canada, Heriot-Watt University, Edinburgh, UK, and Université Catholique de Louvain, Belgium. He is an Elected Fellow of the Institute of Mathematical Statistics, Honorary Fellow of the Institute and the Faculty of Actuaries, Corresponding Member of the Italian Institute of Actuaries and is on the editorial board of numerous scientific journals. He belongs to various national and international research and academic advisory committees. He co-authored the influential books "Modelling of Extremal Events for Insurance and Finance", Springer, 1997 and "Quantitative Risk Management: Concepts, Techniques and Tools", Princeton UP, 2005. Dr. Embrechts consults for a number of leading financial and regulatory institutions. For full details of his CV, see his website: <http://www.math.ethz.ch/~embrechts>

For online registration, please go to
<http://www.saasweb.hku.hk/seminar/20161012.html>



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