AKTUARVEREINIGUNG ÖSTERREICHS

ÖSTERREICHISCHE GESELLSCHAFT FÜR VERSICHERUNGSFACHWISSEN

TECHNISCHE UNIVERSITÄT WIEN

FORSCHUNGSGRUPPE FÜR FINANZ- UND VERSICHERUNGSMATHEMATIK

Einladung zur Vortragsreihe aus Finanz- und Versicherungsmathematik

Prof. Dr. Ole E. Barndorff-Nielsen

University of Aarhus, Department of Mathematical Sciences
http://home.imf.au.dk/oebn/

Volatility and Power Variation

The term Stochastic Volatility, in its broad sense, expresses the idea that elemental standard deviations - or spot volatilities - of randomly influenced phenomena exhibit values that tend to cluster in time and/or space. Two of the areas where stochastic volatility is of key importance are finance and turbulence (in turbulence stochastic volatility is referred to as Intermittency). Of particular interest are integrals over intervals, or spatial regions, of powers of spot volatility processes, and such integrals may be studied by means of the recently introduced concept of Multipower Variation. The theory of realised multipower variation will be outlined, and applications to finance will be indicated (inference, forecasting, pricing). In finance the underlying framework is that of semimartingales. In turbulence the scene is partly taken by stationary processes that are not semimartingales, and this leads to interesting new questions.

Ole Eiler Barndorff-Nielsen (born 18 March 1935 in Copenhagen) is a renowned Danish statistician, who has contributed to many areas of the statistical science. He became interested in statistics when, as a student of actuarial mathematics, he worked part-time at the Department of Biostatistics of the Danish State Serum Institute. He graduated from the University of Aarhus (Denmark), where he has spent most of his academic life, and where he became professor of statistics in 1973.
Prof. Barndorff-Nielsen is a member of the Royal Danish Academy of Sciences and Letters and of Academia Europaea. He has received the Dr. Honoris Causa degree from Université Paul Sabatier, Toulouse and from the Katholieke Universiteit Leuven. In 1993-1995 he was a very influential president of the Bernoulli Society for Mathematical Statistics and Probability. He was the editor of International Statistical Review in 1980-1987 and of the journal Bernoulli 1994-2000. In 1984 he produced a short film on the physics of blown sand and the life of the British scientist and explorer Brigadier Ralph Alger Bagnold.

Termin:	Dienstag, 14. November 2006, 16:30 Uhr s.t.
Ort:	**Technische Universität Wien** 1040 Wien, Wiedner Hauptstraße 8-10 Freihaus, Turm B (gelber Bereich), 2. Stock, Hörsaal FH 2
Webseite:	**http://www.fam.tuwien.ac.at/vr/**

Im Anschluß:
Dr. Mark Podolskij (Ruhr-University of Bochum):
Estimation of Volatility Functionals in the Simultaneous Presence of Microstructure Noise and Jumps

Mag. Dr. Klaus Wegenkittl
Präsident der Aktuarvereinigung Österreichs
Präsident des Österreichischen Förderungsvereins der Versicherungsmathematik

Dkfm. Dr. Siegfried Sellitsch
Präsident der Österr. Gesellschaft für Versicherungsfachwissen

Univ.-Prof. Dr. Uwe Schmock
Finanz- und Versicherungsmathematik (FAM)
Technische Universität Wien

o.Univ.-Prof. Dr. Walter Schachermayer
Finanz- und Versicherungsmathematik (FAM)
Technische Universität Wien