



PROGRAM

Thursday, 15 July

Insurance and Finance

8.00 - 8.45 **Coffee and Registration**

Chair: E. Platen

8.45 - 9.40 **Paul Embrechts**, ETH Zentrum, Switzerland.
Actuarial methods in financial risk management

9.40 - 10.15 **Claudia Klüppelberg**, Technische Universität, Germany.
Fighting financial risk with mathematics

10.15 - 10.45 **Morning Tea**

Chair: C. Chiarella

10.45 - 11.20 **Ragnar Norberg**, University of Copenhagen, Denmark.
A Markov chain financial market

11.20 - 11.55 **Christian Hipp**, Universität Karlsruhe, Germany.
Optimal hedging strategies for insurers

11.55 - 12.30 **Michael Sherris** and Weixi Shen, University of New South Wales, Australia.
Financial valuation of retirement benefits based on salary

12.30 - 2.00 **Lunch**

Chair: C. Klüppelberg

2.00 - 2.35 **Michael I. Taksar**, State University of New York at Stony Brook, USA.
Optimal risk/dividend distribution control models. Applications to insurance

2.35 - 3.10 **Alexander V. Melnikov**, Steklov Mathematical Institute, Russia.
The binomial financial market in the context of stochastic exponents and martingales

3.10 - 3.45 **Eckhard Platen**, University of Technology, Sydney, Australia.
A financial market model with trading volume and stochastic volatility

3.45 - 4.15 **Afternoon Tea**

Parallel Session Room 1, 4.15 - 6.00

Chair: M. Taksar

1. **Neill Brennan** and Priya Parameswaran, Salomon Smith Barney, Australia.
Australian Risk Attribute Model (RAM)

2. **Mette Hansen** and Kristian R. Miltersen, Odense University, Denmark.
Minimum Rate of Returns Guarantees: the Danish case

3. **Roger Gay**, Monash University, Australia.
Futures portfolios and pension funds

4. **Nobuhiro Nakamura**, MTB Investment Technology Institute, Co., Ltd, Japan.
Increasing Markovian families in multi-factor Heath-Jarrow-Morton models and pricing credit derivatives

5. Lim Kian Guan and **Wang Shijun**, The National University of Singapore.
Kalman filtering of continuous Poisson-Gaussian HJM model

Parallel Session Room 2, 4.15 - 6.00

Chair: M. Sherris

1. Lim Kian Guan and **Qin Xiao**, The National University of Singapore.
Estimating maximum smoothness and maximum flatness forward rate curve
2. **Anthony Hughes**, Maxwell L. King and Kwek Kian Teng, University of Adelaide, Australia.
Selecting the order of an ARCH model
3. Winfried Hallerbach and **Bert Menkveld**, Erasmus University Rotterdam
Value at Risk as a diagnostic tool for corporates: the airline industry
4. **Folke A. Rauscher**, Daimler-Chrysler AG, Germany.
Neural multi-task learning for forecasting integrated financial markets
5. Lim Kian Guan and **Zhang Zhe**, The National University of Singapore.
An analytical approach to pricing American options under stochastic volatility

6.00 - 8.00 Cocktail Reception
Hotel Inter.Continental, Sydney

Friday, 16 July

Credit Risk and Derivative Pricing

Chair: P. Embrechts

- 8.30 - 9.05 Robert J. Elliott, **Monique Jeanblanc** and Marc Yor, Universite d'Evry, France
On models of default risk
- 9.05 - 9.40 Chang Shiwei and **Lim Kian Guan**, The National University of Singapore.
Pricing defaultable bonds
- 9.40 - 10.15 **Claus Madsen**, BG Bank, Copenhagen.
Term-structure dynamics and the determination of state-variables - A multi-factor approach

10.15 - 10.45 **Morning Tea**

Chair: C. Hipp

- 10.45 - 11.20 **Robert Elliott** and John van der Hoek, University of Alberta, Canada.
Affine bond prices and stochastic flows
- 11.20 - 11.55 **John van der Hoek** and Michael Sherris, University of Adelaide, Australia.
Non-expected utility risk measures and implications for asset allocation
- 11.55 - 12.30 **Gunter H. Meyer**, Georgia Institute of Technology, USA.
Pricing American puts for assets with discrete dividends

12.30 - 2.00 **Lunch**

Chair: M. Jeanblanc

- 2.00 - 2.35 **Alexander Novikov**, Knut Stensrod and Katrina Mather, The University of Newcastle, Australia.
Pricing of path-dependent options when asset prices are Log-Levy processes
- 2.35 - 3.10 **David Heath** and Eckhard Platen University of Technology, Sydney, Australia.
Pricing and hedging of index derivatives for an alternative market model
- 3.10 - 3.45 **Yoshio Miyahara**, Nagoya City University, Japan.
Minimal relative entropy martingale measures of geometric Lévy processes and option pricing models in incomplete markets
- 3.45 - 4.15 **Afternoon Tea**

Parallel Session Room 1, 4.15 - 6.00

Chair: J. van der Hoek

1. **Michael F Kelly** and Peter W Buchen, University of Western Sydney, Australia.
Global generalized linear inverses and generalized binomial trees
2. **Thierry Ané** and Vincent Lacoste, University Paris IX Dauphine, France .
Understanding bid-ask spreads of derivatives under uncertain volatility and transaction costs
3. Lim Kian Guan and **Zhao Longkai**, The National University of Singapore.
Recombining tree for deterministic volatility functions
4. **Andrew Cumming**, Westpac Banking Corporation, Australia.
A general notion of Value-at-Risk
5. **Wojciech Szatcschneider**, Universidad Anahuac, Mexico.
Comments on CIR in financial modelling

Parallel Session Room 2, 4.15 - 6.00

Chair: C. Madsen

1. **Mouaoya Noubir**, Ecole Nationale des Ponts et Chaussées, France.
Pricing interest rates exotic options in the framework of approximate market models
2. Frank De Jong, **Joost Driessen** and Antoon Pelsser, University of Amsterdam, The Netherlands.
Libor and swap market models for the pricing of interest rate derivatives: An empirical comparison
3. **Yusho Kagraoka**, MTB Investment Technology Institute Co Ltd (MTEC), Japan.
Comparison of the HJM model and the BGM model: Application to the Japanese market
4. **Tim Dun**, Geoff Barton and Erik Schlögl, University of Sydney, Australia.
Simulated swaption delta-hedging in the lognormal forward Libor model
5. **Erik Schlögl**, University of Technology, Sydney, Australia.
A multicurrency extension of the lognormal interest rate market models

7.00 - 11.00 A Night at the Opera
Tosca, Sydney Opera House*

Saturday, 17 July

Value at Risk and Asset Price Modelling

Chair: R. Norberg

- 8.30 - 9.05 **Ton Vorst**, Erasmus Centre for Financial Research, The Netherlands.
Optimal portfolios under VaR-constraints
- 9.05 - 9.40 **Kristian R. Miltersen** and Svein-Arne Persson, Odense University, Denmark.
Guaranteed investment contracts: distributed and undistributed excess return
- 9.40 - 10.15 **Les Clewlow** and Chris Strickland, University of Technology, Sydney, Australia.
A multi-factor model for energy derivatives risk management

10.15 - 10.45 **Morning Tea**

Chair: R. Elliott

- 10.45 - 11.20 **Uwe Schmock**, ETH - Zurich, Switzerland.
Allocation of risk capital
- 11.20 - 11.55 **Carl Chiarella**, University of Technology, Sydney, Australia.
A technique for the calibration of option pricing models

11.55 - 12.30 **Jin-Chuan Duan**, Evan Dudley, Genevieve Gauthier, and Jean-Guy Simonato, Hong Kong University of Science and Technology, Hong Kong.
Pricing discretely monitored barrier options by a Markov chain

12.30 - 2.00 **Lunch**

Chair: *K.R. Miltersen*

2.00 - 2.35 **Gerhard Stahl** and Wolfgang Härdle, Federal Banking Supervisory Office, Germany.
Practices, principles and problems of Value-at-Risk models

2.35 - 3.10 **Takeaki Kariya** and Masaaki Kobayashi, Kougain-Daiichi Financial Technology, Japan.
Pricing the US mortgage securities - a model describing the burnout effect

3.10 - 3.45 Phillipe Balland and **Lane Hughston**, University of Texas at Austin, USA.
Pricing of contingent claims in incomplete markets

3.450 - 4.15 **Afternoon Tea**

Parallel Session Room 1, 4.15 - 5.15

Chair: *D. Heath*

1. **Jean-Luc Prigent**, THEMA, France.
Optimality of portfolio insurance: beyond the CPPI method
2. **Nick Stokes** and Zili Zhu, CSIRO Mathematical and Information Sciences, Melbourne, Australia.
Improved accuracy for fast partial differential equation methods for options with optimal early exercise
3. **Zili Zhu** and Nick Stokes, CSIRO Mathematical and Information Sciences, Melbourne, Australia.
A finite element platform for pricing path-dependent exotic options

Parallel Session Room 2, 4.15 - 5.15

Chair: *U. Schmock*

1. **Hiroshi Ishijima** and Hiroshi Shirakawa, Tokyo Institute of Technology, Japan.
The log-utility asset management: theoretical and empirical analysis
2. Vathsala Srinivasan and **Chandrasekhar Krishnamurti**, National University of Singapore.
Analysis of structural changes in the Indian foreign exchange market using time-series intervention techniques
3. **Jin Zhang**, City University of Hong Kong.
Arithmetic Asian Options with continuous sampling

Closing Session, Ball Room

Chair: *T. Vorst*

5.15 - 6.00 **Tomas Björk**, Stockholm School of Economics, Sweden.
Geometric aspects of interest rate theory

7.00 - 11.00 Conference Dinner, Red's Restaurant, The Rocks, Sydney*

Monday, 19 July

One Day Workshop on Credit Risk

9.00-5.30 Presented by **Ton Vorst**, Director of the Erasmus Centre for Financial Research, The Netherlands.

* Advance payment required for these social events