International Conference on Modeling, Optimization, and Risk Management in Finance

March 5–7, 2003

DoubleTree Hotel & Conference Center
University of Florida, Gainesville, FL, USA

The conference will present state-of-the-art results and latest advances in risk management and finance, including market, credit, and operational risk; algorithms and techniques for portfolio management and optimization; assets and liability management; optimal trading and execution strategies; simulation and optimization approaches to pricing derivatives. The conference is focused on the following topics: (1) modern techniques for portfolio management and optimization; (2) theory and practice of risk management; and (3) modeling financial and energy derivatives. Website of the conference: `www.ise.ufl.edu/rmfe/events/qf2003`

Organizers:	Prof. Stan Uryasev and Dr. Paul Krokhmal, Risk Management and Financial Engineering Lab, University of Florida
Organizing committee:	Prof. John Birge, Northwestern University and Prof. Thomas Coleman, Cornell University
Conference sponsors:	National Science Foundation, Standard & Poor's, University of Florida College of Engineering, and Department of Industrial and Systems Engineering

8:00 AM – 8:30 AM	**Registration**
8:30 AM – 9:00 AM	**Welcome** Rardin, Ronald *National Science Foundation, USA* Khargonekar, Pramod *University of Florida, USA* Uryasev, Stanislav *University of Florida, USA*

Session W-1

Chairman: Stanislav Uryasev

9:00 AM – 9:30 AM	**Optimal portfolio choice with non-decreasing pay-outs and limited trading periods** Birge, John *Northwestern University, USA*
9:30 AM – 10:00 AM	**Optimization of a Long-Short Portfolio Under Nonconvex Constraints** Konno, Hiroshi *Chuo University, Japan*
10:00 AM – 10:30 AM	**Regulatory Impacts on Credit Portfolio Management** Theiler, Ursula *Risk Training, Germany* Bugera, Vladimir *University of Florida, USA* Revenko, Alla *University of Florida, USA* Uryasev, Stanislav *University of Florida, USA*
10:30 AM – 10:45 AM	**Coffee Break**

Session W-2

Chairman: Paul Krokhmal

10:45 AM – 11:15 AM	**Risk Measures** Szego, Giorgio *University of Rome, Italy*
11:15 AM – 11:45 AM	**Approaches to Risk in Optimization** Rockafellar, R. Tyrell *University of Washington, USA*
11:45 AM – 12:15 PM	**A multivariate FGD technique to improve VaR computation in equity markets** Audrino, Francesco *University of Southern Switzerland, Switzerland* Barone-Adesi, Giovanni *University of Southern Switzerland, Switzerland*
12:15 PM – 12:25 PM	**Coffee Break**

Lunch Session – University of Florida

Chairman: Stanislav Uryasev

12:25 PM – 12:55 PM	**Conditional Drawdown-at-Risk for Multiple Scenarios** Chekhlov, Alexei *Thor Asset Management, Inc., USA* Uryasev, Stanislav *University of Florida, USA* Zabarankin, Michael *University of Florida, USA*

12:55 PM – 1:25 PM

Portfolio Optimization with Deviation Risk Measures
Rockafellar, R. Tyrell *University of Washington, USA*
Uryasev, Stanislav *University of Florida, USA*
Zabarankin, Michael *University of Florida, USA*

1:25 PM – 1:55 PM

Classification Using Optimization: Application to Credit Ratings of Bonds
Bugera, Vladimir *University of Florida, USA*
Uryasev, Stanislav *University of Florida, USA*
Zrazhevsky, Grigory *Kiev University, Ukraine*

1:55 PM – 2:05 PM

Coffee Break

Session W-3

Chairman: Paul Krokhmal

2:05 PM – 2:35 PM

Pricing and Hedging Structured Energy Supply Contracts as Real Options: the Case with Tolling Agreements
Deng, Shijie *Georgia Institute of Technology, USA*

2:35 PM – 3:05 PM

Valuation And Optimal Interruption For Interruptible Electricity Contracts
Tompaidis, Stathis *University of Texas at Austin, USA*
Kolos, Sergey *University of Texas at Austin, USA*
Baldick, Ross *University of Texas at Austin, USA*

3:05 PM – 3:35 PM

Dispatch and Hedging of Physical Assets
Wolyniec, Krzysztof *Mirant, Inc., USA*

3:35 PM – 3:50 PM

Coffee Break

Session W-4

Chairman: Stanislav Uryasev

3:50 PM – 4:20 PM

Coherent Allocation of Risk Capital
Denault, Michel *HEC-Montréal, Canada*

4:20 PM – 4:50 PM

Pricing and Hedging Defaultable Bond Basket Options
Estenghamat, Kian *Princeton University, USA*

4:50 PM – 5:20 PM

Credit Barrier Models With Jumps and State Dependent Volatility
Albanese, Claudio *University of Toronto, Canada*

5:20 PM – 5:50 PM

Mean Square Optimal Hedges Using Higher Order Moments
Yamada, Yuji *University of Tsukuba, Japan*
Primbs, James *Stanford University, USA*

Session T-1

Chairman: Stanislav Uryasev

8:00 AM – 8:30 AM

Effective Portfolio Optimisation Under Different Market Regimes
Consigli, Giorgio *University La Sapienza of Rome, Italy*

8:30 AM – 9:00 AM

Returns-Based Estimation Of Sector Allocations In Mutual Funds
Tutuncu, Reha *Carnegie Mellon University, USA*

9:00 AM – 9:30 AM

Integrated Chance Constraints In An ALM Model For Pension Funds
van der Vlerk, Maarten *University of Groningen, The Netherlands*

9:30 AM – 10:00 AM

Minimum Value-At-Risk Dynamic-Spread Liability Benchmarks To Assess Active Asset/Liability Portfolio Management
D'Vari, Ron *State Street Research & Management Company, USA*

10:00 AM – 10:15 AM

Coffee Break

Session T-2

Chairman: Paul Krokhmal

10:15 AM – 10:45 AM

Decentralized Risk Management For Global Financial Companies
Mulvey, John *Princeton University, USA*

10:45 AM – 11:15 AM

The Risk Measure Process
Pflug, Georg *University of Vienna, Austria*

11:15 AM – 11:45 AM

The Hidden Dangers Of Historical Simulation
Pritsker, Matt *Federal Reserve Board, USA*

11:45 AM – 11:55 AM

Coffee Break

Lunch Session – Standard & Poor's

Chairman: Stanislav Uryasev

11:55 AM – 12:25 PM

Learning Probabilistic Models and Model Performance Measures for Expected Utility Maximizers
Friedman, Craig *Standard & Poor's, USA*

12:25 PM – 12:55 PM

Single and Multiple Period Probability of Default Modeling
Huang, James *Standard & Poor's, USA*

12:55 PM – 1:25 PM

Modeling Recovery Rates of Defaulted Debt and Aggregate Default Rates
Sandow, Sven *Standard & Poor's, USA*

1:25 PM – 1:35 PM

Coffee Break

Session T-3

Chairman: Paul Krokhmal

1:35 PM – 2:05 PM	**A moment computation algorithm for the error in discrete dynamic hedging** Primbs, James *Stanford University, USA* Yamada, Yuji *University of Tsukuba, Japan*
2:05 PM – 2:35 PM	**A General Two-Factor Lattice Model For Asset Valuation** Tseng, Chung-Li *University of Maryland, USA*
2:35 PM – 3:05 PM	**Asset And Liability Management For Insurance Products: Stochastic Models** Saunders, David *University of Pittsburgh, USA*
3:05 PM – 3:35 PM	**Integrated risk management and trading strategies: an application in stock portfoilio management** Edirisinghe, Chanaka *The University of Tennessee, USA*
3:35 PM – 3:50 PM	**Coffee Break**

Session T-4

Chairman: Stanislav Uryasev

3:50 PM – 4:20 PM	**International Financial Networks with Intermediation and Electronic Transactions** Nagurney, Anna *University of Massachusetts, USA* Cruz, Jose *University of Massachusetts, USA*
4:20 PM – 4:50 PM	**An Analysis Of Quantitative Active Investment Strategies** Qian, Edward *Putnam Investments, USA*
4:50 PM – 5:20 PM	**Minimizing CVaR and VaR** Alexander, Siddharth *Cornell University, USA* Coleman, Thomas *Cornell University, USA* Li, Yuying *Cornell University, USA*
5:20 PM – 5:50 PM	**Optimizing Benchmark-Based Utility Functions** Morton, David *University of Texas at Austin, USA* Popova, Elmira *University of Texas at Austin, USA* Popova, Ivilina *Ceiba Capital, LP, USA* Zhong, Ming *University of Maryland, USA*

7:00 PM – 9:00 PM	**Conference dinner**

Session F-1 *Chairman: Stanislav Uryasev*

8:00 AM – 8:30 AM

Data Models and Decision Models For Asset and Liability Management Under Uncertainty
Kyriakis, Triphonas *Analytics, UK*
Mitra, Gautam *Brunel University, UK*

8:30 AM – 9:00 AM

Multi-period Stochastic Optimization Models for Dynamic Asset Allocation
Hibiki, Norio *Keio University, Japan*

9:00 AM – 9:30 AM

Credit Risk Management as a Non-Cooperative Game
Ebnother, Silvan *Zurich Cantonal Bank and University of Southern Switzerland, Switzerland*
Leippold, Markus *University of Zurich and Swiss Banking Institute, Switzerland*
Vanini, Paolo *Zürcher Kantonalbank and University of Southern Switzerland, Switzerland*

9:30 AM – 10:00 AM

Model Validation for Power Portfolio Optimization: A Case Study
Sen, Suvrajeet *University of Arizona, USA*

10:00 AM – 10:15 AM

Coffee Break

Session F-2 *Chairman: Paul Krokhmal*

10:15 AM – 10:45 AM

Risk Management With Benchmarking
Shapiro, Alex *New York University, USA*
Basak, Suleyman *London Business School and CEPR Institute of Finance and Accounting, UK*
Teplá, Lucie *INSEAD, France*

10:45 AM – 11:15 AM

Solution Algorithms for Large Scale QP and QMIP Models for Portfolio Planning
Mitra, Gautam *Brunel University, UK*
Ellison, Frank *Brunel University, UK*

11:15 AM – 11:45 AM

Risk Modeling in Stochastic Programming
Ahmed, Shabbir *Georgia Institute of Technology, USA*
Takriti, Samer *IBM, USA*

11:45 AM – 11:55 AM

Coffee Break

Lunch Session – University of Florida *Chairman: Stanislav Uryasev*

11:55 AM – 12:25 PM

No Pain, No Gain? Effecting Market Discipline via Reverse Convertible Debentures
Flannery, Mark *University of Florida, USA*

12:25 PM – 12:55 PM	**A Sample-Path Approach to Optimal Position Liquidation** <u>Krokhmal, Paul</u> *University of Florida, USA* Uryasev, Stanislav *University of Florida, USA*
12:55 PM – 1:25 PM	**Stock Market as a Graph** Boginski, Vladimir *University of Florida, USA* <u>Butenko, Sergiy</u> *University of Florida, USA* Pardalos, Panos *University of Florida, USA*
1:25 PM – 1:35 PM	**Coffee Break**

Session F-3 *Chairman: Paul Krokhmal*

1:35 PM – 2:05 PM	**Interaction of Credit And Liquidity Risks: Modelling, Pricing, And Hedging** Zheng, Harry *Imperial College, UK*
2:05 PM – 2:35 PM	**The Level and Persistence of Growth Rates** Chan, Louis K. C. *University of Illinois at Urbana-Champaign, USA* <u>Karceski, Jason</u> *University of Florida, USA* Lakonishok, Josef *University of Illinois at Urbana-Champaign, USA*
2:35 PM – 3:05 PM	**Alternative Approaches to Risk Control** <u>MacLean, Leonard</u> *Dalhousie University, Canada* Zhao, Yonggan *Nanyang Technological University, Singapore* Ziemba, William *University of British Columbia, Canada*
3:05 PM – 3:35 PM	**Optimizing Total Risk Forecasts** Anderson, Greg *Barra, Inc., USA* Goldberg, Lisa *Barra, Inc., USA* <u>Kercheval, Alec</u> *Florida State University, USA* Miller, Guy *Barra, Inc., USA* Sorge, Kathy *Barra, Inc., USA*
3:35 PM – 3:50 PM	**Coffee Break**

Session F-4 *Chairman: Stanislav Uryasev*

3:50 PM – 4:20 PM	**A Tale of Two Options: Employee Reload Options and Shout Call Options** Dai, Min *Peking University, China* <u>Kwok, Yue Kuen</u> *Hong Kong University of Science and Technology*
4:20 PM – 4:50 PM	**Valuation of American Options via Penalty Methods** <u>Khaliq, Abdul</u> *Western Illinois University, USA* Voss, D. A. *Western Illinois University, USA* Kazmi, S. H. K. *Western Illinois University, USA*

4:50 PM – 5:20 PM	**Semi-Static Hedging Strategies for Discretely Observed Volatility Swaps** Windcliff, Heath *University of Waterloo, Canada* Vetzal, Ken *University of Waterloo, Canada*
5:20 PM – 5:50 PM	**Bayesian Approach To Portfolio Optimization** Greyserman, Alexander *Hite Capital Management & Columbia University, USA*
5:50 PM – 6:00 PM	**Closing Remarks**