

# Workshop on Portfolio Risk Management (PRisMa 2006)

Sept. 26, 2006

Funded by  
Christian Doppler Research Association  
Bank Austria Creditanstalt  
Austrian Federal Financing Agency

Organized by FAM and PRisMa Lab  
Vienna University of Technology, Austria  
[www.fam.tuwien.ac.at/prisma2006/](http://www.fam.tuwien.ac.at/prisma2006/)

## Christian Doppler Laboratory for Portfolio Risk Management (PRisMa Lab)

- **Web site:** [www.prismalab.at](http://www.prismalab.at)
- **Legal organisation and evaluation:**  
Christian Doppler Research Association (CDG)  
([www.cdg.ac.at](http://www.cdg.ac.at))
- **Industrial partners for research:**
  - Bank Austria Creditanstalt (BA-CA)  
([www.ba-ca.com](http://www.ba-ca.com), modules 1–8)
  - Austrian Federal Financing Agency (ÖBFA)  
([www.oebfa.co.at](http://www.oebfa.co.at), module 9)
- **Funding:** CDG: 50 %, BA-CA: 40 %, ÖBFA: 10 %

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## PRisMa Lab (cont.)

- **Laboratory director:** Prof. Dr. Uwe Schmock
- **Host institute:**  
Research Group for Financial & Actuarial Mathematics  
(FAM, [www.fam.tuwien.ac.at](http://www.fam.tuwien.ac.at))  
Institute for Mathematical Methods in Economics  
TU Vienna, Wiedner Hauptstr. 8–10, floor 6&7
- **Duration:** 2006–2007, extendable to 2012
- **Research:** Structured in 9 modules

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## PRisMa Lab's Research Modules

- M1** Application of actuarial methods to operational risk  
Module leader: Prof. Dr. Peter Grandits
- M2** Risk-adjusted value functionals and capital allocation  
Module leader: Dr. Johannes Leitner
- M3** Measures of risk and risk-based capital allocation  
Module leader: Prof. Dr. Walter Schachermayer
- M4** Dependence modelling for pricing and risk management  
Module leader: Prof. Dr. Uwe Schmock
- M5** Modelling of fixed income markets  
Module leader: Prof. Dr. Josef Teichmann

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## Research Modules in PRisMa Lab (cont.)

- M6** Credit risk models and credit derivatives  
Module leader: Prof. Dr. Uwe Schmock
- M7** Numerical methods in finance  
Module leader: Dr. Reinhold Kainhofer
- M8** Modelling of market risk with jump processes  
Module leader: Dr. Friedrich Hubalek
- M9** Quantification of counterparty risk for exotic swaps  
Module leaders:  
Schachermayer/Schmock/Teichmann

## PRisMa Lab's Researchers

- Dr. Stefan Gerhold (M9, since March 2006)
- Dr. Susanne Klöppel (M3+M4, since Sept. 2006)
- Dr. Johannes Leitner (M2, since Aug. 2006)
- Dr. Gregory Temnov (M1, since March 2006)
- Dipl.-Math. Barbara Dengler (M4, since March 2006)
- DI Andreas Hula (M8, since Jan. 2006)
- DI Robert Schöftner, MAS (M6, Jan.–Sept. 2006)
- Maria Siopacha, MSc. (M9, Oct. 2006 – Feb. 2007)
- DI Thomas Steiner (M5, since Oct. 2005)
- DI Richard Warnung (M1, May–July 2006)

## Program of the Workshop PRisMa 2006

- 9.00–9.10 **Prof. Dr. Uwe Schmock** (TU Vienna)  
*Welcome and Presentation of the Christian Doppler  
Laboratory for Portfolio Risk Management*
- 9.10–9.20 **Dr. Johann Strobl** (BA-CA)  
*Forschungskooperation aus der Sicht der BA-CA*
- 9.20–9.30 **Prof. Dr. Walter Schachermayer** (TU Vienna)  
*Introduction of Prof. Josef Teichmann,  
Laureate of the START Prize*
- 9.30–10.20 **Prof. Dr. Josef Teichmann** (TU Vienna)  
*Flexibility of OU-Interest Rate Models*
- 10.20–10.50 **Coffee Break**

## Program of the Workshop PRisMa 2006 (cont.)

- 10.50–11.20 **Dr. Stefan Gerhold** (PRisMa Lab, TU Vienna)  
*An Implementation of the LIBOR Market Model  
for Pricing Exotic Constant Maturity Swaps*
- 11.20–12.00 **Dr. Irina Slinko** (TU Vienna)  
*On Finite Dimensional Realizations  
of Two-Country Interest Rate Models*
- 12.00–14:00 **Lunch Break**
- 14:00–14:40 **Dr. Friedrich Hubalek** (TU Vienna)  
*Simple Explicit Variance-Optimal Hedging  
for Path-Dependent and Multi-Asset Derivatives*

## Program of the Workshop PRisMa 2006 (cont.)

- 14:40–15:20 **Dr. Jan Palczewski** (University of Leeds, UK)  
*Portfolio Optimisation with Economic Factors  
and Transaction Costs*
- 15:20–15:50 **Coffee Break**
- 15:50–16:30 **Dr. Gregory Temnov** (PRisMa Lab, TU Vienna)  
*Combined Methodology for Modelling  
and Measuring Operational Risk*
- 16:30–17:10 **DI Christian Bayer** (TU Vienna)  
*Discretization of SDEs: Euler Methods and Beyond*
- 17:10–17:50 **DI Barbara Forster** (TU Vienna)  
*Computation of Price Sensitivities*
- 17:50–19:00 **Bread and Wine**