

# ANNUAL REPORT 2005



Institut für Statistik  
und Decision Support Systems  
Universität Wien

Department of Statistics  
and Decisions Support Systems  
University of Vienna



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Brünnerstraße 72, A-1210 Wien**

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Wien, März 2006

## **Teaching and research activities**

The main teaching duty of the Department of Statistics and Decision Support Systems comprises the education of students at the Faculty of Economics, Business Administration and Statistics as well as at the Faculty of Computer Science in the fields of Mathematics, Statistics, Operations Research, Econometrics, and several areas of Computer Science.

The Department offers undergraduate courses in Mathematics (Linear Algebra, Analysis, Discrete Mathematics) and Statistics for students of Management Science, Economics, Sociology, Applied Computer Science and Statistics. Graduate courses are offered in Mathematical Statistics, Applied Statistics, Operations Research (Optimization and Simulation), Foundations and Applications of Computer Science, Econometrics and Stochastic Financial Mathematics.

Research is conducted in the areas of Mathematical Statistics; Applied Statistics, Computational Statistics; Stochastic Methods of Financial Mathematics; Game Theory; Econometrics; Time Series Analysis; Global, Nonlinear, Combinatorial and Stochastic Optimization; Scheduling and Project Management; Modeling and Simulation of Complex Systems; Software Engineering; Information Systems and Statistical Methods in Theoretical Computer Science.

## **Faculty**

### **Senior Faculty**

Bomze, Immanuel	Operations Research, Stochastic Modelling
Futschik, Andreas	Asymptotic Statistics, Applied Statistics, Bioinformatics
Gutjahr, Walter J.	Algorithms and Data Structures, Combinatorial Optimization, Reliability, Software Engineering
Pflug, Georg Ch.	Mathematical Statistics, Stochastic Optimization and Risk Management
Pötscher, Benedikt	Econometrics, Statistics and Time Series Analysis
Reschenhofer, Erhard	Applied Statistics, Econometrics, Biometrics
Schachinger, Werner	Stochastic Finance, Analysis of Data Structures

### **Junior Faculty**

Baierl, Andreas	Statistical Methods in Quantitative Genetics
Frommlet, Florian	Applied Mathematics and Statistics
Klein, Irene	Stochastic Finance
Mirkov, Radoslava	Stochastic Optimization
Nickl, Richard	Probability and statistics in infinite dimensions
Rubey, Martin	Combinatorics, Econometrics
Wozabal, Nancy	Statistics and Optimiziation

## Papers published in 2005

**Bomze, I.**; Palagi, L.

Quartic formulation of standard quadratic optimization problems

*Journal of Global Optimization* **32**, 181-205 (2005)

**Bomze, I.**

Portfolio selection via replicator dynamics and projections of indefinite estimated covariances

*Dynamics of Continuous, Discrete and Impulsive Systems B* **12**, 527-564 (2005)

**Bomze, I.**

Optimization of functions with rank-two variation over a box

*European Journal of Operational Research* **161**, 598-617 (2005)

Derndorfer, E.; **Baierl, A.**; Nimmervoll, E.; Sinkovits, E.

A panel performance procedure implemented in R

*Journal of Sensory Studies* **20**, 217-227 (2005)

Derndorfer, E.; Bareis, P.; Ebhart, P.; **Baierl, A.**

Is there an exotic pear flavour ?

*Ernährung/Nutrition* **29**, 368-374 (2005)

Doerner, K.; **Gutjahr, W. J.**; Hartl, R.; Karall, M.; Reimann, M.

Heuristic solution of an extended double-coverage ambulance location problem for Austria

*Central European Journal of Operations Research* **13**, 325-340 (2005) TR 2005-04

**Futschik, A.**; Posch, M.

On the Optimum Number of Hypotheses when the Number of Observations is Limited

*Statistica Sinica* **15**, 841-855 (2005)

**Futschik, A.**; Huang, W.T.

Confidence sets for the maximizers of intensity functions

*Journal of Statistical Planning and Inference* **134**, 549-567 (2005)

Gaivoronski, A.; **Pflug, G.**

Value-at-risk in portfolio optimization: properties and computational approach

*The Journal of Risk* **7** (2), 1-31 (2005)

**Gutjahr, W. J.**

Two metaheuristics for multiobjective stochastic combinatorial optimization

Proc. SAGA 2005 (Stochastic Algorithms: Foundations and Applications), Oct. 2005

Moscow (Russia), eds.: O.B. Lupanov, O.M. Kasim-Zade, A.V. Chaskin, K.

Steinboeck,

*Springer Lecture Notes in Computer Science* **3777**, 116-125 (2005) TR 2006-06

Kroiss, R.; Winkler, V.; Bikas, D.; Fleischmann, E.; Mainau, C.; **Frommlet, F.**; Muhr, D.; Fuerhauser, C.; Tea, M.; Bittner, B.; Kubista, E.; Oefner, P.J.; Bauer, P.; Wagner, T.M.

Austrian Hereditary Breast and Ovarian Cancer Group. Younger birth cohort correlates with higher breast and ovarian cancer risk in European BRCA1 mutation carriers

*Human mutation* **26** (6), 583-9 (2005)

**Leeb, H.; Pötscher, B.**

Model Selection and Inference: Facts and Fiction

*Econometric Theory* **21**, 21-59 (2005)

Linneroth-Bayer, J.; Mechler, R.; **Pflug, G.**

Refocusing Disaster Aid

*Science* Vol. **309**, 1044-1046 (2005)

Lozanov-Crvenkovic, Z.; **Mirkov, R.**

Some classes of positive definite Colombeau generalized functions

*Novi Sad Journal of Mathematics* Vol. **35** (1), 151-159 (2005)

**Pflug, G.**; Ruszszynski, A.

Measuring Risk for Income Streams

*Computational Optimization and Applications* **32** (1-2), 161–178 (2005)

**Pflug, G.**; Weissaupt, H.

Probability gradient estimation by set-valued calculus and applications in network design

*SIAM Journal on Optimization* **15** (3), 898-914 (2005)

Rauner, M.; Brailsford, S.; **Gutjahr, W. J.**; Zeppelzauer, W.

Optimal screening policies for diabetic retinopathy using a combined discrete-event simulation and ant colony optimization approach

*Proceedings of the International Conference on Health Sciences Simulation,*

Western MultiConference '05, eds.: Anderson, J.G., Katzper, M., 147-152 (2005)

**Rubey, M.**

The h-vector of a ladder determinantal ring cogenerated by \$2\times 2\$ minors is log-concave

*Journal of Algebra* **292** (2), 303-323 (2005)

Scope, A.; Schwendenwein, I.; **Frommlet, F.**

Influence of outlying values and variations between sampling days on reference ranges for clinical chemistry in budgerigars (*Melopsittacus undulatus*)

*The Veterinary record* **156** (10), 310-4 (2005)

Scope, A.; **Frommlet, F.**; Schwendenwein, I.

Circadian and seasonal variability and influence of sex and race on eight clinical chemistry parameters in budgerigars (*Melopsittacus undulatus*, Shaw 1805)

*Research in veterinary science* **78** (1), 85-91 (2005)

## Papers finished in 2005

**Baierl, A.; Bogdan, M.; Frommlet, F.; Futschik, A.**

On Locating Multiple Interacting Quantitative Trait Loci in Intercross Designs  
To appear in: *Genetics*

**Bomze, I.; Frommlet, F.; Rubey, M.**

Improving SDP bounds for minimizing quadratic functions over the  $\ell^1$ -ball  
*TR 2005-09*

**Bomze, I.; Locatelli, M.; Tardella, F.**

New and old bounds for standard quadratic optimization: dominance, equivalence and incomparability  
*TR 2005-10*

**Clarke, B.R.; Futschik, A.**

On the Convergence of the Newton Method when Estimating Higher Dimensional Parameters

**Futschik, A.; Isogai, E.**

On the Consistency of Kernel Density Estimates under Modality Constraints  
To appear in: *Statistics and Probability Letters*

**Guo, V.J.W.; Rubey, M.; Zeng, J**

Combinatorial Interpretations of the q-Faulhaber and q-Salie Coefficients  
to appear in *Journal of Combinatorial Theory*

**Gutjahr, W. J.**

On the finite-time dynamics of ant colony optimization  
To appear in: *Methodology and Computing in Applied Probability*  
*TR 2005-05*

**Gutjahr, W. J.; Maniezzo, V.; Schedl, M.; Strauss, Ch.**

Solving a periodic routing problem with stochastic demands  
*TR 2005-07*

Hochreiter, R.; Paulsen, V.; **Pflug, G.**

Optimal management of unit linked life insurance  
To appear in: *Handbook of asset and liability management* (B. Ziemba and S. Zenios eds.)

Hochreiter, R.; **Pflug, G.**

Scenario generation for stochastic multi-stage decision processes as facility location problems  
To appear in: *Annals of Operations Research*

Kaniovski, Yu.; **Pflug, G.**

Risk Assessment for Credit portfolios: A coupled Markov Chain Approach

**Klein, I.**

Market free lunch and large financial markets

**Klein, I.**

No asymptotic free lunch reviewed in the light of Orlicz spaces

**Leeb, H.; Pötscher, B.**

Can One Estimate the Unconditional Distribution of Post-Model-Selection  
Estimators?

*TR 2005-02*

Meisel, D.V.; Byrne, R.A.; Kuba, M.; Mather, J.; Ploberger, W.; **Reschenhofer, E.**

Contrasting activity patterns of two related Octopus species

To appear in: *Journal of Comparative Psychology* (2006)

**Nickl, R.**

Donsker Type Theorems for Nonparametric Maximum Likelihood Estimators (2005)

*TR 2005-03*

**Pflug, G.**

Dual representations of risk measures

To appear in: *Mathematical programming*

**Pflug, G.; Hochreiter, R.**

Polynomial and parallel algorithms for pricing path dependent interest rate  
instruments (Revision)

*Computational Economics*

**Pflug, G.**

On distortion risk functionals

To appear in: *Statistics and Decisions*

**Pflug, G.; Wozabal, D.**

Ambiguity in Portfolio Selection

Ploberger, W.; **Reschenhofer, E.**

Testing for cycles in time series

Rauner, M.; Brailsford, S.; **Gutjahr, W. J.**; Zeppelzauer, W.

Combined discrete-event simulation and ant colony optimisation approach for  
selecting optimal screening policies for diabetic retinopathy

To appear in: *Computational Management Science*

**Reschenhofer, E.**

Selecting selection methods

**Rubey, M.**

A combinatorial interpretation of Guo and Zeng's q-Faulhaber coefficients

**Schachinger, W.; Addis, B.; Bomze, I.; Schoen, F.**  
 New results for molecular formation under pairwise potential minimization  
*TR 2005-01*

**Wozabal, N.; Pflug, G.**  
 Asymptotic Analysis of Risk Functionals (Working paper)

### **Research stays at other institutions 2005**

<b>Person</b>	<b>Institution</b>	<b>Research topic</b>	<b>Duration in weeks</b>
Baierl, Andreas	Wroclaw Technical University, POL	Robust methods for locating quantitative trait loci	1
Frommlet, Florian	TU Wroclaw, POL	Modified BIC for QTL detection	2
Frommlet, Florian	Uni Klagenfurt, AUT	Doctoral School: Optimization over Polynomials and Semidefinite Programming	1
Futschik, Andreas	Murdoch University, Perth, AUS	Newton's Method in M-Estimation and nonparametric Curve Estimation	7
Futschik, Andreas	TU Wroclaw, POL	Statistical Methods in Genetics and Bioinformatics	1
Gutjahr, Walter J.	IDSIA, University Lugano, SUI	Computational optimization under uncertainty	1
Pötscher, Benedikt	Department of Economics, Universidad Carlos III, Madrid, ESP	Model Selection	3

### **Presentations at conferences 2005**

<b>Person</b>	<b>Conference</b>	<b>Title of presentation</b>
Baierl, Andreas	IASC, Limassol, CYP	On Locating multiple interacting quantitative trait loci
Bomze, Immanuel	International Conference on Global Optimization, Almeria, ESP	New SDP-based bounds for the weighted clique number
Bomze, Immanuel	AIRO Conference 2005, Camerino, ITA	Semidefinite Programming for cheap and efficient bounding of hard nonlinear optimization problems

Bomze, Immanuel	22nd LL Seminar on Graph Theory 2005, Leipzig, GER	New SDP-based bounds for the clique number
Frommlet, Florian	3 <sup>rd</sup> World Conference on Computational Statistics, Limassol, CYP	On the Dependence of Sequence Alignment Scores calculated with Different Scoring Matrices
Futschik, Andreas	55th Session of the International Statistical Institute (ISI),  Sidney 2005, AUS	Consistent Density Estimation under Modality Constraints
Futschik, Andreas	55th Session of the International Statistical Institute (ISI),  Sidney 2005, AUS	More hypotheses versus more power: Designing a Multiple Hypothesis Testing Experiment Subject to a Maximum
Gutjahr, Walter J.	MIC 2005, Vienna, AUT	Overall Number of Possible Observations
Gutjahr, Walter J.	SAGA 2005, Moscow, RUS	Theory of ant colony optimization: Status and perspectives ( <i>invited keynote talk</i> )
Gutjahr, Walter J.	ÖGOR Annual Meeting Graz, 2005	Two metaheuristics for multiobjective stochastic combinatorial optimization
Mirkov, Radoslava	8 <sup>th</sup> SIAM Conference on Optimization, Stockholm, SWE	Metaheuristics International Conference 2005: Die Highlights
Nickl, Richard	4 <sup>th</sup> International Conference on High Dimensional Probability, Santa Fe, USA	On convergence of discretizations of stochastic processes for multi-stage stochastic optimization problems
Pflug, Georg	Finance and Decisions '05, Bozen, ITA	Donsker Type Theorems for Nonparametric Maximum Likelihood Estimators
Pflug, Georg	Risk measures and risk management, EURANDOM, Eindhoven, NED	Risk assessment for credit portfolios: a coupled Markov chain model  ( <i>invited</i> )
Pflug, Georg	Risk Management, London, GBR	Acceptability functionals, risk capital functionals and risk deviation functionals: Primal and dual properties for one-and multiperiod models  ( <i>invited</i> )
Pflug, Georg	IFIP, Turin, ITA	Risk functionals: the primal and the dual view  ( <i>invited</i> )
Pflug, Georg	Decision making in Finance, Coimbra, POR	Optimization of nonstandard risk functionals  ( <i>invited</i> )
		Risk contributions

Pflug, Georg	Workshop on Risk and Insurance, Florenz, ITA	Subdifferential representations of risk functionals
Pötscher, Benedikt	37éme Journées de Statistique, Pau, FRA	Model Selection and Inference <i>(invited)</i>
Pötscher, Benedikt	Workshop on Model choice and Validation, Munich, GER	Model Selection and Inference <i>(invited)</i>
Pötscher, Benedikt	Workshop “New Trouble in Regression Analysis”, Regensburg, GER	Model Selection and Inference <i>(invited)</i>
Pötscher, Benedikt	C.Z.Wei Memorial Conference, Taipei, TPE	Model Selection and Inference <i>(invited)</i>
Pötscher, Benedikt	9 <sup>th</sup> World Congress of the Econometric Society, London, GBR	Performance Limits for Estimators of the Risk or Distribution of Shrinkage-Type Estimators, and Some General Lower Risk Bounds

### Talks given at other institutions 2005

<b>Person</b>	<b>Institutiton</b>	<b>Title</b>
Baierl, Andreas	Rothamsted Research, Harpenden, GBR	Methods for locating quantitative trait loci (QTL)
Frommlet, Florian	Eurochimerism Meeting March 2005, Vienna, AUT	Statistical Analysis of Sensitivity/Quantifiability testing with EU-Chimerism Markers
Gutjahr, Walter J.	IDSIA, University of Lugano, SUI	A differential equation approach towards judging the convergence speed of ant algorithms
Gutjahr, Walter J.	ETH Zürich, SUI	Ant colony optimization for stochastic problems: From convergence results towards finite-time analysis
Mirkov, Radoslava	Riskplan/ISDS	Tree Approximation and Scenario Generation
Pflug, Georg	Université de Grenoble, FRA	Risk functionals
Pötscher, Benedikt	Department of Economics, Universidad Carlos III, Madrid, ESP	Model Selection and Inference
Wozabal, Nancy	Höhere Wahr. Theorie Seminar, Faculty of Mathematics, Universität Wien, AUT	Consistency Properties of risk functionals

## **Referee work for journals and organisations**

Bomze, Immanuel	Central European Journal of Operations Research (2) European Journal of Operational Research (2) Games and Economic Behaviour (2) Information Sciences (2) Journal of Computational and Applied Mathematics (1) Journal of Global Optimization (2) Journal of Mathematical Biology (1) Mathematical Methods of Operations Research (1) Mathematical Programming (1) Pattern Recognition (1) SIAM Journal on Optimization (1) Statistics & Probability Letters (1) Computational Statistics and Data Analysis (1) SIAM Journal on Optimization (1) Mathematical Methods in Statistics (1) Statistics and Probability Letters (1) Mathematical Reviews (1) Netherlands Organization for Scientific Research (NWO) (1) Annals of OR (1) Proteins: Structure, Function, and Bioinformatics (1) European Journal of Operational Research (2) Methodology and Computing in Applied Probability (1) Central European Journal of Operations Research (1) Annals of Operations Research (1) International Journal of Production Economics (1) Journal of Global Optimization (2) IEE Transactions (1) Optimization (1) IEEE Transactions on Evolutionary Computing (2) OR Spectrum (1) Transactions on Software Engineering and Methodology (1) Program Committee EvoCop 2006 Program Committee SIS 2005 Program Committee MIC 2005 Program Committee GECCO 2005 Program Committee SAGA 2005 Journal of Global Optimization (1) Statistics & Probability Letters (1); with Pflug, Georg Journal of Multivariate Analysis (1) Annals of Statistics Econometric Theory Statistics Journal of Global Optimization (1)
Frommlet, Florian	
Futschik, Andreas	
Gutjahr, Walter J.	
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Klein, Irene	
Mirkov, Radoslava	
Nickl, Richard	
Pötscher, Benedikt	
Schachinger, Werner	

## **Editorial work**

Bomze, Immanuel	Central European Journal of Operations Research Journal of Global Optimization Optimization Letters
Gutjahr, Walter J.	Special Issue of “Computers and Operations Research” on “Search-Based Software Engineering” with Harman, Mark Proceedings MIC 2005 (in preparation) with Dörner, Karl; Gendreau; Michel; Greistorfer, Peter; Hartl, Richard
Mirkov, Radoslava	Special Issues - Annals of OR, Quantitative Finance, Journal of Banking and Finance (all with Pflug, Georg)
Pflug, Georg	is associate editor of the following journals Statistics and Probability Letters Mathematical Methods of OR Computational Optimization and Applications Computational Management Science Central European Journal of OR
Pötscher, Benedikt	Co-editor of Econometric Theory Associate Editor of Journal of Econometrics Co-editor of Econometric Reviews Guest-Editor of Special Issue of Econometric Theory Referee U.S. National Science Foundation (NSF)

## **Membership as scientific professional in scientific organisations**

Bomze, Immanuel	Italienische Gesellschaft für OR (AIRO) Öst. Statistische Gesellschaft (OSG) Öst. Mathem.Gesellschaft (ÖMG) Öst. Gesellschaft f. OR (ÖGOR)
Baierl, Andreas	OSG
Futschik, Andreas	OSG IMS
Gutjahr, Walter J.	Öst. Gesellschaft f. OR (ÖGOR)
Mirkov, Radoslava	SIAM (Optimization)
Pflug, Georg	OSG Öst. Mathem.Gesellschaft (ÖMG) Öst. Gesellschaft f. OR (ÖGOR)
Pötscher, Benedikt	AMS ASA IMS Econometric Society Verein für Socialpolitik (Ausschuss für Oekonometrie) OSG

## Public relations activities

Bomze, Immanuel

Teilnahme an der BeSt 05/Beratung;

Vorbereitung des SchülerInnen Tages 31.01.2006

Interview "Operations Research" Wirtschaftsblatt, September 2005

Futschik, Andreas

Schülerwettbewerb und Preisrätsel 2005

Vorbereitung des SchülerInnen Tages 31.01.2006

Gutjahr, Walter J.

Scientific Interview on „Heuristics“, Austrian Broadcasting Corporation (ORF), 2<sup>nd</sup>

Sept. 2005

## Supervision of diploma theses and Ph.D.theses

DA .....Diplomarbeit

DISS 1 ...Dissertation – First referee

DISS 2 ...Dissertation – Second referee

<b>Supervisor</b>	<b>Author</b>	<b>DA/DISS 1/DISS 2</b>
Bomze, Immanuel	Wassermann, Bertram	DISS 1
Gutjahr, Walter J.	Parragh, Sophie	DA
Gutjahr, Walter J.	Partel, Doris	DA
Gutjahr, Walter J.	Pitakaso, Rapeepan	<i>graduated 2005</i> DISS 2
Pflug, Georg	Hochreiter, Ronald	<i>graduated 2005</i> DISS 1
Pflug, Georg	Mirkov, Radoslava	DISS 1
Pflug, Georg	Schabauer, Hannes	DISS 1
Pflug, Georg	Wiesinger, Clemens	DISS 1
Pflug, Georg	Wozabal, David	DISS 1
Pflug, Georg	Wozabal, Nancy	DISS 1
Pötscher, Benedikt	Nickl, Richard	<i>graduated 2005</i> DISS 1

## Other professional activities

Bomze, Immanuel

Vorstandsmitglied OSG,

Vorstandsvorsitzender ÖGOR

Coorganization of the Colloquium in the honor of Leopold

Schmetterer at the Academy of Sciences (April 4 – 5)

Member of Program Committee for: EUROPT Workshop

"Advances in Continuous Optimization", Reykjavik 2006

Operations Research 2006, Karlsruhe 2006

Statistical advisor for the Eurochimerism group

Vizestudienprogrammleiter Fak. f. Wirtschaftswissenschaften

Gutjahr, Walter J.	Member of the Program Steering Committee and the Local Organizing Committee of the 6 <sup>th</sup> Metaheuristic Int. Conf., Vienna 2005
Pflug, Georg	Project coordinator of the funded project “Competence-Driven Project Portfolio Analysis” (FWF, grant L264-N13, approval date 11 <sup>th</sup> Oct. 2005)
Pötscher Benedikt	Organization of the seminar “Algorithms for Optimization with Incomplete Information” Forschungszentrum für Informatik, Schloss Dagstuhl (16. – 21. January) Coorganization of the Colloquium in the honor of Leopold Schmetterer at the Academy of Sciences (April 4 – 5) Organization of the conference “Decision making in Finance” at the Free University Bozen (April 28 – 30) Organization of the workshop “Operational Risk Management”, at the University of Vienna (November 16), Vorstandsmitglied ÖGOR Member of Program Committee Econometrics and Empirical Economics, Econometric Society European Meeting 2006 Organizer of an Invited Session “Time Series Analysis” at PROBASTAT 2006 Offer of a Full Professor Position at the University of Frankfurt/Main (declined)

### **Talks given at the department in 2005**

10. Jänner: M. Rubey, Wien  
Kombinatorik? Statistik!

17. Jänner: I. Bomze, Wien  
Efficient and cheap bounds for (standard) quadratic optimization

24. Jänner: A.Wakolbinger, Frankfurt  
Zufällige Genealogien, selektive Sweeps und neutrale Mitläufer

31. Jänner: K. Klamroth, Erlangen  
Optimization with Conflicting Objectives: Applications, Models and Solution Methods

31. Jänner: G. Klau, Berlin  
Structural Alignment of RNA Sequences with Lagrangian Relaxation

14. März: P. Gritzmann, München  
Diskrete Tomographie

18. März: J. King, Genoa Inc., UK  
Markovian decision processes

04. April: K. Krickeberg, Paris  
Neue mathematisch-statistische Anwendungen von Gesundheitsregistern

04. April: J. Pfanzagl, Köln  
Was ist ein "optimaler" Schätzer ?

04. April: H. Heyer, Tübingen  
Hypergruppen in Analysis und Wahrscheinlichkeitstheorie

05. April: H. Strasser, Wien  
Statistik als Gegenstand mathematischer Forschung

05. April: J.-B. Hiriart-Urruty, Toulouse  
Some open problems in nonlinear analysis and optimization

05. April: W. Schachermayer, Wien  
Anwendung der Wahrscheinlichkeitstheorie auf Finanzmathematik

11. April: K. Knight, Toronto  
Unit root tests with infinite variance noise

25. April: R. Mirkov, Wien  
On convergence of discretizations of stochastic processes for multi-stage stochastic optimization problems

02. Mai: A. Baierl, Wien  
On Locating Multiple Interacting Quantitative Trait Loci (QTL) in Intercross Designs

09. Mai: P. Filzmoser, Wien  
The Projection Pursuit Approach for Robust Multivariate Analysis

06. Juni: J.-P. Vial, Genf  
Decision under uncertainty with linear decision rules

13. Juni: R. Nickl, Wien  
Donsker Type Theorems for Maximum Likelihood Estimators

20. Juni: W. Achtziger, Dortmund  
On Optimization Problems with Vanishing Constraints

20. Juni: F. Frommlet, Wien  
Improving SDP bounds for minimizing quadratic functions over the  $l_1$ -ball

27. Juni: H. Leeb, Yale  
Model selection and inference in regression when the number of parameters is of the same order as sample size

30. Juni: M. Locatelli, Torino  
Randomness, plateau search, penalties, restart rules: simple ingredients leading to very efficient heuristics for the Maximum Clique Problem

03. Oktober: L.Qi, HongKong  
Generalized Newton Methods for Semi-Infinite Programs
10. Oktober: I. Dukanovic, Maribor  
Strengthening Lovasz theta number by semidefinite programming
24. Oktober: D. Ramsey, Wroclaw  
On interaction and information in games based on the job search problem
31. Oktober: P. Stadler, Leipzig  
Phylogenetic Footprinting in Multiple Sequences
07. November: J.-M.Dufour, Montreal  
Point-Optimal Instruments and Generalized Anderson-Rubin Procedures for Nonlinear Models
10. November: E.Giné, Connecticut  
Estimation of densities of functions of several sample variables
14. November: A.Juditsky, Grenoble  
Primal-dual stochastic approximation
28. November: F.Semet, Valenciennes  
Real-time Emergency Fleet Management in Montreal
28. November: M.Underleithner, Wien  
Austrian Red Cross - Logistics in Health Care and Emergency Response
28. November: P. Nolz, Wien  
Multicriteria Location Planning for Public Facilities in Tsunami-Prone Coastal Areas
05. Dezember: T. Pennanen, Helsinki  
A Galerkin method for multistage stochastic programs
19. Dezember: E. Carrizosa, Sevilla  
Distance optimization and decision making