

TEACHING AND RESEARCH ACTIVITIES

The main teaching duty of the Department of Statistics and Decision Support Systems comprises the education of students at the School of Economics, Business and 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; Statistical Methods in Theoretical Computer Science as well as Pattern Recognition.

FACULTY

Senior Faculty:

Bomze , Immanuel M.	Non-linear and Global Optimization, Mathematical Statistics, Game Theory
Fröschl , Karl A.	Statistical Data Modelling, Production Scheduling, Human Factors in Computing
Futschik , Andreas	Asymptotic Statistics, Applied Statistics
Grossmann , Wilfried	Applied Statistics, Statistical Data Bases, Environmental Simulation
Gutjahr , Walter J.	Algorithms and Data Structures, Combinatorial Optimization, Reliability, Software Engineering
Hudec , Marcus	Applied Statistics, Statistical Computing
Neuwirth , Erich	Applied Statistics, Information Technology for Education, Mathematics & Musics Education, Combinatorics
Pflug , Georg	Mathematical Statistics, Stochastic Optimization and Financial Management
Pötscher , Benedikt	Econometrics, Statistics and Time Series Analysis
Reschenhofer , Erhard	Applied Statistics, Econometrics, Biometrics
Uchida , Gabriele	Non-linear Optimization

Junior Faculty:

Center , Christian	Applied Mathematics, Statistics in Pattern Recognition, Mathematical and Statistical Computing
Denk , Michaela	Statistical Information Systems
Klein , Irene	Stochastic Finance
Krall , Christoph	Biomathematics
Leeb , Hannes	Econometrics, Statistics
Novak , Andreas J.	Time Series Analysis, Econometrics
Schachinger , Werner	Stochastic Finance, Analysis of Data Structures
Schimanovich , Werner	Mathematical Logic and Computer Science
Schwab , Harald	Numerical Harmonic Analysis
Weisshaupt , Heinz	Set-Valued (Stochastic) Optimization, Mathematical Statistics, Optimization in Finance

ANNUAL REPORT 2001

Papers published in 2001

Author	Title	Bibliographic details
Bomze, Immanuel M.	Quadratic Optimization: Standard Problems I - Theory	In: Encyclopedia of Optimization, C.A. Floudas and PM. Pardalos, Kluwer Academic Publishers, 270-272, (2001)
Bomze, Immanuel M.	Quadratic Optimization: Standard Problems II - Algorithms	In: Encyclopedia of Optimization, C.A. Floudas and PM. Pardalos, Kluwer Academic Publishers, 266-268, (2001)
Bomze, Immanuel M.	Quadratic Optimization: Standard Problems III - Applications	In: Encyclopedia of Optimization, C.A. Floudas and PM. Pardalos, Kluwer Academic Publishers, 268-270, (2001)
Brannath, Werner; Futschik, Andreas	Statistik für Wirtschaftswissenschaftler	Universitätstaschenbücher, 2001
Center, Christian; Pflug, Georg Ch.; Mayer, Manfred	Stochastic Shape Theory	In: Digital Image Analysis: Selected Techniques and Applications; (Kropatsch, Walter; Bischof, Horst ed.) Springer, New York, 49 –79, (2001)
Danninger-Uchida, Gabriele	Krein-Milman Theorem	In: Encyclopedia of Optimization, C.A. Floudas and P.M. Pardalos (eds.) Kluwer Academic Publishers, Vol 3, 106, (2001)
Danninger-Uchida, Gabriele	Caratheodory Theorem	In: Encyclopedia of Optimization, C.A. Floudas and P.M. Pardalos (eds.), Kluwer Academic Publishers, Vol 1 236-237, (2001)
Denk, Michaela	Embodying Record Linkage Procedures into a Metadata Repository	EYSM 2001 - Abstracts, Jánska Dolina (Slowakei) Dept. of Probability and Statistics, Comenius University, Bratislava, The 12th European Young Statisticians Meetin Jánska Dolina, Slowakei (2001)
Feichtinger, Gustav; Hartl, Richard; Kort, Peter; Novak, Andreas J.	Terrorism Control in the Tourism Industry	Journal Optimization Theory and Applications 108 (2) 283-296, (2001)
Froeschl, Karl A.; Grossmann, Wilfried	Deciding Statistical Data Quality	New Techniques and Technologies for Statistics ; Nanopoulos, D. Wilkinson, N. Karavitis, Luxembourg/ European Communities P. European Communities ETK-NTTS Conference Crete / GR 567 – 575, (2001)
Fröschl, Karl A.	Informationstechnologie im Dienst der Vermittlung sozio-ökonomischer Kontexte.	In: Biblioteca Europa; Schjerve-Rindler, Rosita ed.; Istituto Italiano per gli Studi Filosofici; Napoli, 25 147-161, (2001)

Grandits, Peter; Schachinger, Werner	Leland's approach to option pricing: The evolution of a discontinuity	Mathematical Finance 11,3 347-355, (2001)
Grossmann, Wilfried; Fröschl, Karl A.	Deciding Statistical Data Quality.	In: European Communities 2001 New Techniques and Technologies for Statistics/Exchange of Technology and Know-how; Hersonissos, Kreta 565-577, (2001)
Grossmann, Wilfried; Froeschl, Karl A.	The role of metadata in using administrative sources	Research in Official Statistics 3, Band 1, 65 – 82, (2001)
Gutjahr, Walter J.	A reliability model for nonhomogeneous redundant software versions with correlated failures	Computer Systems Science and Engineering 6, CRL Publishing Ltd , 361-370, (2001)
Gutjahr, Walter J.; Czarnowski, I.; Jedrzejowicz, P.; Ratajczak, E.; Skakowski, A.	Scheduling multiprocessor tasks in presence of correlated failures	SCASE '01 (2nd Int. Workshop on Soft Computing Applied to Software Engineering) Enschede 67-77, (2001)
Gutjahr, Walter J.; Dörner, Karl; Hartl, Richard; Strauss, Christine; Stummer, Christian	Ant Colony Optimization in multiobjective portfolio selection	4th Metaheuristic International Conference; Porto, 243-248, (2001)
Gutjahr, Walter J.; Eder, Anselm	A Markov model for dyadic interaction learning	5th European Workshop on Reinforcement Learning, Utrecht , 17-18, (2001)
Gutjahr, Walter J.; Eder, Anselm; Neuwirth, Erich	Modelling social interactions by learning markovian matrices	8th Int. Conf. on Facet Theory, Prag, 95-106, (2001)
Liski, Matti; Kort, Peter; Novak, Andreas J.	Increasing Returns and Cycles in Fishing	Resource and Energy Economics, 23 (3) 241-258, (2001)
Maringer, F. J.; Heiss, G.; Jung, M.; Futschik, Andreas; Friedmann, H.; Bossew, P.	A new combined geo-statistical and empirical method for assessing the value and the geographical distribution of the radon availability in soil.	Proceedings Third Eurosymposium on protection against radon; Liege, Belgium; 143-148, (2001)
Maringer, F. J.; Heiss, G.; Jung, M.; Futschik, Andreas; Friedmann, H; Bossew, P.	Radon und Geologie: Möglichkeiten, aktuelle Beispiele und Grenzen.	Tagungsbericht 'Strahlenschutz für Mensch und Gesellschaft im Europa von Morgen. TÜV 'Strahlenschutz für Mensch und Gesellschaft im Europa von Morgen; Gmunden, 111-114, (2001)

Neuwirth, Erich	Recursive Combinatorial Functions: Extending Galton's Board	Discrete Mathematics, 239, 33-51, (2001)
Neuwirth, Erich	Designing a Pleasing Sound Mathematically	Mathematics Magazine 74, 91-98, (2001)
Neuwirth, Erich	Kombinatorik, Rekursion und Tabellenkalkulation	Der Mathematikunterricht 47/3, 52-64, (2001)
Neuwirth, Erich	Extending the Boundaries of Teacher Education with Co-didactics	EUROLOGO 2001, (Futschek, Gerald ed.); Wien, 107-114, (2001)
Neuwirth, Erich	Turtle Ballet: Simulating Parallel Turtles in a Nonparallel LOGO Version	EUROLOGO 2001 Proceedings, (Futschek, Gerald, ed.) 263-270, Wien (2001)
Neuwirth, Erich	R sings - or using R to sonify data	Proceedings of the 2nd International Workshop on Distributed Statistical Computing; (Hornik, Kurt ed.), Wien, (2001) ISSN 1609-395X
Neuwirth, Erich	Listen to your Data: Sonification with Standard Statistics Software	Chance 14/4, 48-50, (2001)
Neuwirth, Erich; Baier, Thomas	Embedding R in Standard Software, and the other way round	Proceedings of the 2nd International Workshop on Distributed Statistical Computing (Hornik, Kurt ed.), Wien (2001) ISSN 1609-395X
Novak, Andreas J.	Regulated Quality Diffusion Revisited	International Transactions in Operational Research 8 (4) 349-365, (2001)
Pflug, Georg Ch.	Asymptotic ruin probabilities for risk processes with dependent increments	Insurance Mathematics and Economics 28, 381-392, (2001)
Pflug, Georg Ch.	Optimal scenario tree generation for multiperiod financial planning	Math. Programming Ser. B 89 251-271, (2001)
Pflug, Georg Ch.	Derivatives of Probability Measures	Encyclopedia of Optimization, C.A. Floudas, P.M. Pardalos, Kluwer Academic Publishers, (2001)
Pflug, Georg Ch.	Derivatives of Markov Processes and their Simulation	Encyclopedia of Optimization, C.A. Floudas, P.M. Pardalos, Kluwer Academic Publishers, (2001)
Pflug, Georg Ch.	Discrete Stochastic Optimization	Encyclopedia of Optimization, C.A. Floudas, P.M. Pardalos, Kluwer Academic Publishers, (2001)
Pflug, Georg Ch.; Ruszczynski A.	Risk measures for income streams	SPEPS 2001 Stochastic Programming Electronic Publication Series (2001)
Pötscher, Benedikt; Findley, David F.; Wei, Ching-Zong	Uniform Convergence of Sample Second Moments of Families of Time Series Arrays	Annals of Statistics 29, 815-838, (2001)

Pötscher, Benedikt; Leeb, Hannes	The Variance of an Integrated Process Need Not Diverge to Infinity and Related Results on Partial Sums of Stationary Processes	Econometric Theory 17, 671-685, (2001)
Reschenhofer, Erhard	Reference priors versus reverse reference: The role of invariance	The Egyptian Statistical Journal 44, 26-38, (2001)
Reschenhofer, Erhard	The bimodality principle	Journal of Statistics Education 9, (2001)
Schachinger, Werner	Asymptotic normality of recursive algorithms via martingale difference arrays	Discrete Mathematics and Theoretical Computer Science 4,2 363-398, (2001)
Turcsányi-Szabó, Marta; Pluhár, Zsuzsa; Neuwirth, Erich	Robots: Designing and Implementing a Simple Software Interface (combining fischertechnik and MSWLogo)	EUROLOGO 2001 Proceedings, (Futschek, Gerald, ed.) Wien, 149-154, (2001)

Papers finished in 2001

Person	Title
Angelis, de, Pasquale L.; Bomze, Immanuel M.; Toraldo, Gerardo	Ellipsoidal approach to box-constrained quadratic problems
Bomze, Immanuel M.; de Klerk, Etienne	Solving standard quadratic optimization problems via linear, semidefinite and copositive programming
Bomze, Immanuel M.; Locatelli, Marco	A characterization of undominated d.c. decompositions of quadratic functions
Dawid, Herbert; Feichtinger, Gustav; Novak, Andreas J.	Extortion as an Obstacle to Economic Growth
Denk, Michaela; Fröschl, Karl A.	Metadata-bound Data Combination in Database Federations
Faria, Joao R.; Novak, Andreas J.	A Dynamic Model of Cannibalism
Futschik, Andreas; Clarke, B.R.;	Estimating nonsmooth k-modal densities and their inflection points
Futschik, Andreas; Rahnenführer, J.	Screening for differentially expressed genes in microarray experiments based on normal mixtures

Grossmann, Wilfried; Froeschl, Karl A.	Information und Dokumentation in der Statistik
Gutjahr, Walter J.	ACO algorithms with guaranteed convergence to the optimal solution
Gutjahr, Walter J.	Recovery block optimization for dependent module versions
Gutjahr, Walter J.; Dörner, Karl; Hartl, Richard; Strauss, Christine; Stummer, Christian	Ant Colony Optimization in multiobjective portfolio selection
Gutjahr, Walter J.; Dörner, Karl; Hartl, Richard; Strauss, Christine; Stummer, Christian	Investitionsentscheidungen bei mehrfachen Zielsetzungen und künstlichen Ameisen
Gutjahr, Walter J.; Dörner, Karl; Hartl, Richard; Strauss, Christine; Stummer, Christian	Pareto Ant Colony Optimization: A metaheuristic approach to multiobjective portfolio selection
Gutjahr, Walter J.; Eder, Anselm	A Markov model for dyadic interaction learning
Gutjahr, Walter J.; Eder, Anselm; Neuwirth, Erich	Modelling social interactions by learning markovian matrices
Gutjahr, Walter J.; Jedrzejowicz, Piotr; Ratajczak, Ewa; Wierzbowska, Izabela	Optimizing system structure under the criterion of mission failure probability
Hartl, Richard; Novak, Andreas J., Rao, Ambar; Sethi, Suresh	Optimal Pricing of a Product which Diffuses in Rich and Poor Populations
Hubalek, Friedrich; Klein, Irene; Teichmann, Josef	A general proof of the Dybvig-Ingersoll-Ross-Theorem: Long forward rates can never fall
Neuwirth, Erich	The spreadsheet paradigm as a new mathematical notation
Neuwirth, Erich	Let the spreadsheet throw the dice - Spreadsheets as Monte Carlo simulation engines
Neuwirth, Erich	Minimalistic Tools for Mathematical Multimedia
Neuwirth, Erich	Listen to your data: sonification with standard statistics software
Neuwirth, Erich	Two simple proofs and an interesting property of Krattenthaler's matrix inversion

Neuwirth, Erich	Computing Tournament Sequence Numbers efficiently with Matrix Techniques
Neuwirth, Erich	Listen to your Data: Sonification with Standard Statistics Software
Pflug, Georg Ch.; Ruszczynski A.	Risk measures for income streams
Pflug, Georg Ch.; Freeman Paul K.; Martin L.	Risk-shifting in developing countries
Pötscher, Benedikt M.	Nonlinear Functions and Convergence to Brownian Motion: Beyond the Continuous Mapping Theorem
Reschenhofer, Erhard	Can we beat the market?

Research projects

Person	Title	Sponsor	Total budget in ATS	Budget used in 2001 in ATS	Begin / End of the project	Women months / men months
Grossmann Wilfried; Froeschl, Karl Anton	Metanet	EU EUROSTAT	646.734,10	258.693,64	01.12.2000 30.05.2003	0/6
Grossmann, Wilfried;	Inspector	EU EUROSTAT	1.384.465,06	68.980,38	01.06.2001 30.11.2003	0/3
Grossmann Wilfried,	EC 3 (Electronic Commerce Competence Centre)	Wirtschafts- ministerium	357.767,80	287.590,27	Nov.00 Sep.02	Work- contract
Grossmann Wilfried,	Rauchen in der Schule	Ludwig Boltzmann Institut für Gesundheits- soziologie	30.000,00	30.000,00	01.03.2001 30.06.2001	Work- contract
Pötscher, Benedikt M.	Model Selection and Statistical Inference	FWF	1.255.962,00	418.654,00	01.10.2000 30.09.2002	0/12
Pflug, Georg Ch.	AURORA	FWF	4.173.700,00	1.430.100,00	01.04.2000 31.03.2003	0/24
Pflug, Georg Ch.	Statistische Datenabhängigkeit in der Finanzplanung	FWF	679.035,00	348.000,00	01.04.2000 31.03.2002	12/0

Pflug, Georg Ch.	Markovprozesse als Szenarien-modelle für Finanzdaten	OENB	800.000,00	350.000,00	01.03.2000 31.12.2001	0/8
Neuwirth, Erich	Software- und Multimedia- Unterstützung von mathematischer, statistischer und naturwissenschaft- licher Ausbildung	Jubiläums- fonds der Österr. Nationalbank	200.000,00	135.000,00	01.07.1997 01.12.2001	0/0
Neuwirth, Erich	Co-Didactics	Wissensch.- Technisches Abkommen Österreich- Ungarn	50.000,00	25.000,00	01.01.2001 31.12.2002	0/0

Presentations at conferences

Person	Conference	Title of presentation
Bomze, Immanuel M.	MaxClique'01, Klagenfurt, Austria	Fine-tuning stochastic models for acceleration of Algorithms and towards generating hard test instances
Bomze, Immanuel M.	INFORMS Meeting Maui, USA	Copositive programming and standard quadratic optimization problems
Bomze, Immanuel M.	Optimization and Industry 2001, Great Keppel Island, Queensland, Australien.	Branch-and-Bound Approaches to Standard Quadratic Optimization Problems
Bomze, Immanuel M.	AIRO 2001, Cagliari, Italien	Branch-and-Bound Approaches to Standard Quadratic Optimization Problems
Bomze, Immanuel M.	SGO'01, Hanmer Springs, Neuseeland	Annealed replication: a stochastics-based heuristics for finding large maximal cliques
Denk, Michaela	Jánska Dolina, Slowakei	Embodying Record Linkage Procedures into a Metadata Repository
Fröschl. Karl	Voorburg (NL), Statistics Netherlands	MetaNet
Futschik, A.	München	On Subsampling of Biased Statistics in the Context of Nonparametric Curve Estimation
Grossmann, Wilfried; Froeschl, Karl, A.	1st Metanet Conference, Voorburg, NL	Harmonisation of Medatada - Structures and Definitions

Grossmann, Wilfried	EUROSTAT Metadata Work Group Meeting, Luxembourg	Statistical Metadata - Basic Ideas and Examples
Grossmann, Wilfried; Froeschl, Karl A.	NTTS - ETK 2001, Crete	Deciding Statistical Data Quality
Gutjahr, Walter J.	EWRL 5, Utrecht	A Markov model for dyadic interaction learning
Klein, Irene	ÖMG-Kongreß Wien	Large Financial Markets and Asymptotic Free Lunch
Neuwirth, Erich	Joint Mathematics Meeting, New Orleans	Eine kleine (mathematische) Nachtmusik
Neuwirth, Erich	Institut Henri Poincare, Sorbonne, Paris	Spreadsheets as Tools for Statistical Concepts and Analyses
Neuwirth, Erich	Royal Statistical Society, London	Spreadsheets as Tools for Statistical Concepts and Analyses
Neuwirth, Erich	Bulgarische Mathematische Gesellschaft	Visualizing Recursion in Combinatorics Problems
Neuwirth, Erich	Bulgarische Mathematische Gesellschaft	Spreadsheets as tools for numerical modeling
Neuwirth, Erich	International Conference on Teaching Mathematics with Technology, Klagenfurt	Eine kleine (mathematische) Nachtmusik
Neuwirth, Erich	International Conference on Teaching Mathematics with Technology, Klagenfurt	The spreadsheet paradigm as a new mathematical notation
Neuwirth, Erich	International Conference on Teaching Mathematics with Technology, Klagenfurt	Let the spreadsheet throw the dice - Spreadsheets as Monte Carlo simulation engines
Neuwirth, Erich	EUROLOGO 2001, Linz	Robots: Designing and Implementing a Simple Software Interface (combining fischertechnik and MSWLogo)
Neuwirth, Erich	EUROLOGO 2001, Linz	Turtle Ballet: Simulating Parallel Turtles in a Nonparallel LOGO Version
Neuwirth, Erich	Arbeitsgemeinschaft der Mathematiklehrer an AHS, Wien	Welche Maturanten wünschen sich die Universität
Novak, Andreas	Yale University, New Haven, USA	Extortion as an Obstacle to Economic Growth
Novak, Andreas	Yale University, New Haven, USA	Increasing Returns and Cycles in Fishing
Pflug, Georg Ch.	NEC Symposium, Bonn	The AURORA Financial Management System
Pflug, Georg Ch.	Financial Engineering, Zypern	Financial Management: Models and Algorithms
Pflug, Georg Ch.	9. Conference of Stochastic Programming, Berlin	Risk measures and the associated risk processes

Pflug, Georg Ch.	ÖMG Kongress, Wien	Asymptotic ruin probability for dependent claims
Pflug, Georg Ch.	Statistische Woche, Wien	Wie kann man Risiko messen?
Pötscher, Benedikt M.	NBER/NSF Time Series Workshop, Raleigh	A Problem in Estimating the Distribution of Post-Model-Selection Estimators
Pötscher, Benedikt M.	European Meeting of the Econometric Society, Lausanne	The Finite-Sample Distribution of Post-Model-Selection Estimators, and Uniform Versus Non-uniform Approximations
Schachinger, Werner	“Random Structures & Algorithms ‘01”, Poznan	Concentration of measure for digital trees of linear expected size

Talks given at other institutions

Person	Institution	Title
Bomze, Immanuel M.	DIS Seminar, Univ. La Sapienza, Rom	Cone programming for standard quadratic optimization problems
Bomze, Immanuel M.	Seminar, Istituto Navale, Neapel	Portfolio selection via replicator dynamics and projections of indefinite estimated covariances
Bomze, Immanuel M.	DSI Seminar, Univ. degli Studi, Florenz	Cone programming for standard quadratic optimization problems
Bomze, Immanuel M.	Graduiertenkolleg, TU München	Cone programming for standard quadratic optimization problems
Bomze, Immanuel M.	APODS Seminar, Univ. degli Studi, Pisa	Annealed replication for finding large and heavy cliques
Grossmann, Wilfried; Hudec, Marcus; Fröschl, Karl	Statistik Österreich	Statistik in der Informationsgesellschaft – Neue Aufgaben und Herausforderungen
Futschik, Andreas	Michigan State Univ.	Subsampling of Biased Statistics with application to the identification of locations of extremal points
Futschik, Andreas	Stanford Univ.	Subsampling of Biased Statistics with application to the identification of locations of extremal points
Grossmann, Wilfried; Froeschl, Karl A.; Hudec, Marcus	Statistische Gesellschaft, Wien	Statistik in der Informationsgesellschaft - Neue Aufgaben und Herausforderungen
Gutjahr, Walter J.	Montanuniversität Leoben	Konvergenzanalyse des ACO-Algorithmus zur heuristischen Optimierung
Gutjahr, Walter J.	Universität Paderborn	Heuristische Optimierung mit Ant Systems: ein Überblick über Theorie und Anwendungen

Neuwirth, Erich	Combinatorics Seminar, Dept. of Mathematics, MIT, Cambridge	Recursively defined combinatorial functions: Extending Galton's board.
Neuwirth, Erich	Universite Paul Sabatier, Laboratoire de Statistique et Probabilités, Toulouse	Spreadsheets as Clients for Statistical Software
Neuwirth, Erich	Bulgarische Akademie der Wissenschaften, Statistisches Institut	Spreadsheets as tools for statistical computation and statistical education
Pflug, Georg Ch.	New Jersey Institute of Technology	Shape restricted nonparametric regression
Pflug, Georg Ch.	Michigan State University	Shape restricted nonparametric regression
Pflug, Georg Ch.	Princeton University	Risk measures and convexity
Pflug, Georg Ch.	University of Florida	Risk measures of the transportation type, their properties and the associated risk processes
Pflug, Georg Ch.	The World Bank, Washington, DC	Optimal investment and insurance policies for risk-prone developing countries
Pötscher, Benedikt M.	Institut f. Statistik, Universität München	Probleme bei der Schätzung der Verteilung von Post-Model-Selection Schätzern
Pötscher, Benedikt M.	Center for Economic Research, Tilburg University	A Problem in Estimating the Distribution of Post-Model-Selection Estimators
Pötscher, Benedikt M.	Tinbergen Institute, Amsterdam	A Problem in Estimating the Distribution of Post-Model-Selection Estimators
Pötscher, Benedikt M.	Department of Economics, Univ. Bonn	A Problem in Estimating the Distribution of Post-Model-Selection Estimators

Research stays at other institutions

Person	Institution	Research topic	Duration in weeks
Bomze, Immanuel M.	Univ. Ca' Foscari, Venedig.	Portfolio selection via replicator dynamics and projections of indefinite estimated covariances.	1
Bomze, Immanuel M.	TU Delft.	Branch-and-Bound Approaches to Standard Quadratic Optimization Problems.	1
Bomze, Immanuel M.	Istituto Navale, Neapel.	Branch-and-Bound Approaches to Standard Quadratic Optimization Problems	1
Bomze, Immanuel M.	Univ. La Sapienza, Rom	Annealed replication: a stochastics-based heuristics for finding large maximal cliques.	1
Bomze, Immanuel M.	Univ. Ca' Foscari, Venedig.	Dynamical systems: qualitative and quantitative analysis	2
Pflug, Georg, Ch.	Princeton University	Financial optimization	12

Time spent for teaching, research and administration (hours per week)

The responsibility for these figures lies entirely with the reporting persons

Person	Teaching	Research	Administration
Bomze, Immanuel M.	18	15	15
Cenker, Christian	25	10	15
Denk, Michaela	15	20	5
Fröschl, Karl	7,5	0	32,5
Grossmann, Wilfried	18	15	19
Gutjahr, Walter J.	24	10	10
Klein, Irene	10	25	8
Neuwirth, Erich	20	20	10
Novak, Andreas J.	15	15	10
Pflug, Georg Ch.	20	10	20
Pötscher, Benedikt M.	17	13	20

Reschenhofer, Erhard	20	25	5
Schachinger, Werner	10	26	7
Uchida, Gabriele	25	10	15

Averaging teaching load in hours per week

Person	Total	Lectures	Hours of teaching With less than 10 graded participants
Bomze, Immanuel M.	9,0	5,0	4,0
Cenker, Christian	6,0	1,0	0
Denk, Michaela	5,0	0	2,0
Fröschl, Karl	7,5	3,5	3,5
Grossmann, Wilfried	10,5	6	7,5
Gutjahr, Walter J.	9,5	6	0
Klein, Irene	4	0	0
Novak, Andreas	5	0	0
Pflug, Georg Ch.	12	8	0
Pötscher, Benedikt M.	7	5	0
Reschenhofer, Erhard	5,5	2	0
Schachinger, Werner	4	0	0
Uchida, Gabriele	7	1	1
Neuwirth, Erich	9,5	3,5	7

Referee work for journals and organisations

Person	Journal or Organisation
Bomze, Immanuel M.	Advances in Complex Systems, Discrete Applied Mathematics, Games and Economic Behaviour, IEEE Transactions on Pattern Analysis and Machine Intelligence, International Game Theory Review, Int. J. Game Theory, J. Economic Theory, Mathematical Programming, Monatshefte f. Mathematik, Linear Algebra and its Applications, Optimization and Engineering, OR Spektrum, SIAM J. and Optimization
Futschik, Andreas	Biometrical Journal, Mathematical Reviews, IEEE
Grossmann, Wilfried	Project Evaluation for EPROS Programs and „Kulturlandschaftsforschung“
Gutjahr, Walter J.	IEEE Transaction on Evolutionary Computation, Information Processing Letters, Statistics and Probability Letters, IEEE Transaction on Software Engineering, Computers and Operations Research

Klein, Irene	Finance and Stochastics
Neuwirth, Erich	Reports on books about musics and mathematics
Novak, Andreas J.	Optimal Control Applications and Methods
Pflug, Georg Ch.	Mathematical Programming, Computational Optimization and Applications, National Science Fondation (USA), Journal of Applied Probability
Pötscher, Benedikt M.	Journal of Econometrics, Journal of Multivariate Analysis, Stochastic Processes and Their Applications
Reschenhofer, Erhard	Journal of Time Series Analysis, Journal of Multivariate Analysis, Journal of Econometrics, Metrika
Schachinger, Werner	Theoretical Computer Science, Journal of Algorithms

Editorial work

Person	Journal
Bomze, Immanuel M.	Associate Editor of Central European Journal for Operations Research, Journal of Global Optimization
Futschik, Andreas	contributing editor to Current Index to Statistics
Neuwirth, Erich	International Journal on Computers and Mathematical Learning
Pflug, Georg Ch.	Associate Editor of: Statistics and Probability Letters, Computational Optimization and Applications, Central European Journal of Operations Research, Stochastic Programming Electronic Publications, Austrian Journal of Statistics, Mathematical Methods in Optimization
Pötscher, Benedikt M.	Co-Editor Econometric Theory, Associate Editor Journal of Econometrics, Guest-Editor (with I.R. Prucha) of a special issue of the Journal of Econometrics

Membership as scientific professional in scientific organisations

Person	Scientific Organisation
Bomze, Immanuel M.	Österreichische Gesellschaft für OR (Executive board), Österreichische Statistische Gesellschaft (Executive board), Österreichische Mathematische Gesellschaft
Grossmann, Wilfried	Österreichische Statistische Gesellschaft (Vicepresident)
Neuwirth, Erich	International Association for Scientific Computing, Österreichische Mathematische Gesellschaft, Österreichische Statistische Gesellschaft (Executive board), Österreichische Computergesellschaft (Executive board)
Pflug, Georg Ch.	Austrian Representative: Council of Scientists, INTAS, Brussels; Committee on Stochastic Programming (Executive board of the Stochastic programming community) Österreichische Mathematische Gesellschaft, Österreichische Statistische Gesellschaft, Österreichische Gesellschaft für OR (Executive board), Bernoulli Society, Österreichische Gesellschaft für Mustererkennung;
Pötscher, Benedikt M.	American Mathematical Society, American Statistical Association, Econometric Society, Institute of Mathematical Statistics, Österreichische Statistische Gesellschaft, Verein für Socialpolitik (Ausschuss für Ökonometrie)
Reschenhofer, Erhard	American Statistical Association, Österreichische Statistische Gesellschaft

Public Relations Activities

Person	Activity
Bomze, Immanuel M.	Active member of the mentoring project
Denk, Michaela	Member of the working group „public opinion“ of the ÖSG
Klein, Irene	Survey article about Stochastic Finance for the Festschrift "10 Jahre BWZ"

Supervision of Diploma Theses and Ph.D. Theses

DADiplomarbeit
 DISS 1 ...Dissertation – First referee
 DISS 2 ...Dissertation – Second referee

supervisor	author	DA/ DISS	Title of work
Bomze, Immanuel M.	Einsiedler, Grete	DA	Feasible Ascent Direction Approaches to Standard Quadratic Optimization Problems
Bomze, Immanuel M.	Schramek, Adina	DA	Optimierungsmethoden zur Modellierung von Märkten mit Oligopolen
Fröschl, Karl	Mitterlehner, Andreas	DA	Ein Modell für die Repräsentation statistischer Hochrechnungsgewichte
Futschik, Andreas	König, Franz	DA	Zweistufige Designs in der sequentiellen Statistik
Grossmann, Wilfried	Schmidt, Gerhard	DA	Statistische Analyse von Studiendauern auf der Grundlage von Studentenbefragungen
Gutjahr, Walter J.	Aichberger, Hans	DA	Fehlerspezifikationen in Softwareentwicklungsmodellen
Gutjahr, Walter J.	Pörnbacher, Hubert	DA	Empirische Untersuchung des Verhaltens von ACO- Algorithmen bei zeitabhängiger Evaporisierung der Pheromonspuren
Gutjahr, Walter J.	Dinges, Gerlinde P.	DA	Mathematische Formulierung des semantischen Differentials zur Konzeption einer softwaregestützten Analyse des semantischen Raums
Gutjahr, Walter J.	Preuer, Sibylle	DA	Befragung im Internet -- ein Anwendungsbeispiel
Pflug, Georg Ch.	Herzig, Bernhard	DA	Risiko-Begrenzung in der Portfolio-Optimierung - Versicherungen als Risk-Hedging Instrumente in der modernen Portfolio-Theorie
Pflug, Georg Ch.	Hochreiter, Ronald	DA	Optimierung und Visualisierung von Finanzrisiken
Pflug, Georg Ch.	Dorrer, Gerlinde	DA	Eine Optimierung eines landwirtschaftlichen Betriebes
Pflug, Georg Ch.	Giczi, David	DA	Bewertung von pfadabhängigen Optionen in einem binomialen Latticemodell
Fröschl, Karl	Ofner, Petra	DISS 2	Embedding of Weighting Algorithms into Metadata Structures
Futschik, Andreas	Schwärzler, Jürgen	DISS 1	Strompreisprognose auf liberalisierten Strommärkten
Grossmann, Wilfried	Trenker, Ernst	DISS 2	Automatische Erkennung von Schlafspindeln mit künstlichen neuronalen Netzen

Grossmann, Wilfried	Ofner, Petra	DISS 1 Embedding of Weighting Algorithms into Metadata Structures
Gutjahr, Walter J.	Dörner, Karl	DISS 1 Optimale Testübergangswahrscheinlichkeiten in Markovschen Software-Benutzungsmodellen
Neuwirth, Erich	Fuhrmann, Beate	DISS 1 Tabellenkalkulation als didaktisches Hilfsmittel
Pflug, Georg Ch.	Dörner, Karl	DISS 2 Optimale Testübergangswahrscheinlichkeiten in Markovschen Software-Benutzungsmodellen

Other professional activities

Person	Activity
Bomze, Immanuel M.	Co-organizer of MaxClique '01 (Klagenfurt); special session organizer, INFORMS, Maui 2001; Member mentoring project of the university of Vienna, co-ordinator of Sokrates/Erasmus exchange program
Denk, Michaela	Chairwoman: working group „young statistics“ within ÖSG
Gutjahr, Walter J.	Chairman: working group Operations Research in the Austrian Computer Society; Head: scientific committee of Vienna Knowledge Net
Neuwirth, Erich	Conference Chair EUROLOGO 2001, Member of Scientific Committee EUROLOGO; Section organizer ICTMT5, Member of parliamentary enquete commission: „publication of opinion polls and election forecasts“
Pflug, Georg Ch.	Organizer: IFIP Workshop 2002; Section chairman: ÖMG Tagung 2001; Member of the scientific jury for: Förderungspreis der WU 2001, Deutscher Stochastikpreis 2001, Preise der Österreichischen Statistischen Gesellschaft; Member of the international promotion committee (Habitationskommission) Dr. Wimmer (Bratislava);

Talks given at the department in 2001

Person	Title
H. Bischof (Graz)	Recognizing Objects by their Eigenimages
Marco Budinich (Trieste – Italy)	The elusive Graph Isomorphism Problem
Andras Erik Csallner (Szeged – Hungary)	Interval Arithmetic and Branch and Bound Methods
Etienne de Klerk (Delft University of Technology – Netherlands)	On semi definite programming approaches for the satisfiability problem
Wolfgang Scherrer (TU – Wien)	The relation of CCA subspace of an autoregressive model
Ladislav Halada (Slovak Academy of Sciences, Bratislava)	BQ method for two-stage stochastic programming
Andreas Futschik (Universität Wien)	Bootstrap and Subsampling for Additively Corrected Roots
Prof. Andras Prekopa (Rudgers University and Eötvös University)	Discrete moment problems and their applications
Prof. George Yin (Wayne State University)	Asymptotic properties of singularly perturbed Markov Chains
Larry Blume (Cornell University)	If you're so smart, why aren't you rich?
Jan Willerns (Groningen)	Dissipative Distributed Systems
Luca Gambardella (IDSIA Lugano)	Ant Colony Optimization
Peter Bühlmann (ETH. Zürich)	Boosting mit dem quadratischen Verlust: nichtparametrische Regression und Klassifikation bei hochdimensionalen Prädikatoren
Jan R. Magnus (Center, Tilburg University)	On the harm that pretesting does
Werner Römisch (Humboldt Universität Berlin)	Quantitative stability of stochastic programming problems: the method of probability metrics