Friday, 21 August

Short Communications and Poster Sessions

Short Communications: Friday, 21 August, 14:00–14:45

	14:00–14:15	14:15–14:30	14:30–14:45
Sect.: **01** MA 042	Categories: Logic and Topology, *Chair: Gerhard Preuß*		
	Michel Hebert *Syntactic view on locally generated categories: abstract and concrete cases (p.7)*	**Dieter Leseberg** *Filterconvergence as a convenient concept for Topology (p.8)*	
Sect.: **02** MA 311	Groups II, *Chair: Mikhail H. Klin*		
	Hubert Kiechle *Frobenius groups with many involutions (p.20)*	**Anatolii S. Kondratiev** *Finite linear groups of small degree (p.20)*	**Wujie Shi** *A new classification of groups (p.28)*
Sect.: **07** H 112	Quantum Groups and Vertex Operator Algebras, *Chair: Gerald Höhn*		
	Kailash C. Misra *Demazure Crystals for quantum affine Lie algebras (p.108)*	**Naihuan Jing** *Quantized Kac-Moody algebras and symmetric functions (p.106)*	**Gerald Höhn** *Vertex Operator Algebras and 3-Dimensional Topological Quantum Field Theories (p.105)*
Sect.: **08** MA 041	Univalent Functions I, *Chair: Ruben A. Hidalgo*		
	Bruce O'Neill *Boundary Behavior of Conformal Mappings Associated with Singular Measures (p.145)*	**Teodor Bulboacă** *Differential subordinations and univalent integral operators (p.119)*	**Om Parkash Ahuja** *On Meromorphic Starlike and Convex Functions (p.113)*
Sect.: **08** MA 309	Integral Transforms II, *Chair: Kun Soo Chang*		
	Yukio Kuribayashi *On pseudofourier transforms (p.138)*	**Rama Rawat** *Pompeiu problem and L^p analogues of Wiener-Tauberian for certain homogeneous spaces (p.151)*	**Kun Soo Chang** *Integral transform and convolution of analytic funtionals on abstract Wiener space (p.120)*
Sect.: **08** MA 043	Banach Spaces, *Chair: David Yost*		
	Parviz Azimi *A class of hereditarily complementably ℓ_p Banach spaces (p.115)*	**Robb C. Fry** *Smooth Bump Functions on Banach Spaces (p.124)*	**David Yost** *Twisted sums of classical Banach spaces (p.165)*
Sect.: **10** H 111	Elliptic Equations II (Singularities & Index Theory), *Chair: Vladimir S. Rabinovich*		
	Vladimir Borisovich Vasil'ev *Wave factorization of elliptic symbols (p.223)*	**Igor I. Skrypnik** *Degree of densely defined $(S)_+$ operators and applications (p.222)*	**Vladimir S. Rabinovich** *Elliptic boundary value problems in domains with non-Lipschitz singular points (p.218)*
Sect.: **10** H 110	Hyperbolic Equations I (Integrable Equations), *Chair: Jiahong Wu*		
	Igor Anders *Long-time asymptotic behaviour of non-decaying solutions of KP-type equations (p.198)*	**Tariel Kiguradze** *On periodic solutions of nonlinear second order hyperbolic equations (p.209)*	**Jiahong Wu** *Zero dissipation limits of wave equations (p.225)*
Sect.: **12** H 107	Stochastic Processes I, *Chair: Michael K.R. Scheutzow*		
	Yuriy V. Kolomiets *On behavior of solutions of evolution equations perturbed by random processes (p.257)*	**Vassily A. Yaroshevsky** *Estimation of large deviations of dynamic system phase (p.273)*	**Anna V. Naydonova** *Analysis of Stochastic Recurrent Algorithms with the Random Reaction Time and Applications for Some Queueing Models (p.263)*
Sect.: **12** H 1029	Bayesian Methods, *Chair: Michael Nussbaum*		
	Ammar Sarhan *Empirical Bayes Estimators of Indexed Parameters of Exponential Families*	**Olaf Bunke** *Asymptotic behauviour of Bayes estimates under possibly incorrect models*	
Sect.: **16** H 106	Mathematical Models in Biology, *Chair: Satoshi Takahashi*		
	Andrej Yu. Dubinsky *Mathematical Modelling of electron and proton Transport in Chloroplasts (p.322)*	**Miguel Lara-Aparicio** *Some mathematical aspects of the simulation of the motor circadian rhythm in crayfish (p.327)*	**Satoshi Takahashi** *The oscillation of lateral asymmetry in scale-eating fish (p.333)*
Sect.: **17** H 2033	Optimality Conditions I, *Chair: Bernd Kugelmann*		
	Vassili Dikoussar *Optimal Control with Control-State Constraints (p.339)*		**Olga O. Vasilieva** *Optimality Conditions of Singular Controls (p.354)*
Sect.: **17** H 2013	Variational Inequalities/Fractal Graphs, *Chair: Walter Gomez Bofill*		
	Walter Gomez Bofill *On the regularity of one-parametric variational inequalities (p.341)*	**Olga A. Zinchenko** *The extreme graphs problems (p.356)*	**Anatolii Ivanovich Perov** *Discrete matrix Lur'e equation (singular case) (p.347)*

Short Communications: Friday, 21 August, 15:00–15:45

	15:00–15:15	15:15–15:30	15:30–15:45
Sect.: **01** MA 042	Set Theoretic Topology, *Chair: Dieter Leseberg*		
	Gerhard Preuß *Convenient Topology — A New Branch of Topology (p.9)*	**Harald Nusser** *Completions of probabilistic semiuniform convergence spaces (p.8)*	
Sect.: **02** MA 311	Groups III, *Chair: Andrew J. Woldar*		
	Vahagn H. Mikaelian *Embeddings of countable groups into 2-generator groups with additional properties (p.31)*	**Igor Ya. Subbotin** *On groups with many periodic factor-groups (p.30)*	**Leonid A. Kurdachenko** *On some infinite dimensional linear groups (p.21)*
Sect.: **07** H 112	Quantum Groups and Poisson Homogeneous Spaces, *Chair: Kailash C. Misra*		
	Pu Zhang *Ringel-Hall algebras and quantum groups (p.111)*	**Ho Hai Phung** *Rational representations of matrix quantum groups of type A_n (p.109)*	**Eugene A. Karolinsky** *A classification of Poisson homogeneous spaces of complex reductive Poisson-Lie groups (p.106)*
Sect.: **08** MA 041	Quasiconformal Maps, *Chair: Bruce O'Neill*		
	Alexander Jur'evich Vasil'ev *Two point distortion theorems for quasiconformal mappings (p.162)*	**Evsei M. Dynkin** *Smoothness of quasiconformal mappings at a point (p.122)*	**Vo Dang Thao** *Area Problem for quasiconformal mappings (p.160)*
Sect.: **08** MA 309	Sobolev Classes and Matrix Functions, *Chair: Ilya M. Spitkovsky*		
	Serguei Vodop'yanov *On open and discrete mappings of Sobolev classes with integrable dilatation (p.162)*	**Vladimir V. Peller** *Regularity conditions for vectorial stationary processes (p.147)*	**Ilya M. Spitkovsky** *Almost periodic factorization and its applications (p.157)*
Sect.: **08** MA 043	C*-Algebras, *Chair: George A. Elliott*		
	Martin Mathieu *A simple local multiplier algebra (p.140)*	**Michael Frank** *Conditional expectations of finite index and discrete group actions (p.124)*	**George A. Elliott** *An abstract Weyl–von Neumann theorem (p.123)*
Sect.: **10** H 111	PDE and Mathematical Physics, *Chair: Roland Potthast*		
	Johannes Elschner *Existence, uniqueness, and regularity for solutions of the conical diffraction problem (p.203)*	**Frank Jochmann** *Existence and asymptotic behavior of weak solutions of the drift diffusion equations for semiconductors (p.207)*	**Roland Potthast** *On mixed reciprocity relations in inverse scattering (p.217)*
Sect.: **10** H 110	Navier-Stokes Equations, *Chair: Takeyuki Nagasawa*		
	Mikhail E. Bogovskii *The problem of global smooth solutions for multidimensional Navier-Stokes equations solved (p.199)*	**Soichiro Katayama** *Some semilinear wave equations with nonlinear damping terms (p.208)*	**Takeyuki Nagasawa** *A new energy inequality and partial regularity for weak solutions of Navier-Stokes equations (p.215)*
Sect.: **12** H 107	Stochastic Processes II, *Chair: Peter Imkeller*		
	Andrzej Makagon *Periodically Correlated Processes and Mackey's Imprimitivity Theorem (p.259)*	**Boris G. Martchenko** *Concerning on a theorem for periodic in Slutskiy sense linear random processes (p.260)*	**Andrew Ya. Olenko** *On some properties of correlation and spectral functions (p.264)*
Sect.: **12** H 1029	Stochastic Algorithms, *Chair: Peter Mathé*		
	Grigori Milstein *The probability approach to numerical solution of nonlinear parabolic equations (p.261)*	**Vadim I. Arkin** *Optimal stopping problems with restrictions (p.248)*	**Peter Mathé** *Efficiency of Monte Carlo Integration Using Markov Chains (p.260)*
Sect.: **16** H 106	Game Theory and Mathematical Economics, *Chair: Paul J. Campbell*		
	Fausto Mignanego *Rationality of players and credibility of strategies in leader-follower games (p.330)*	**Serguei Z. Levendorski** *Generalizations of the Black-Scholes Formula for a Class of Truncated Lévy Processes (p.327)*	**Paul J. Campbell** *Klondike solitaire (p.321)*
Sect.: **17** H 2033	Controllability and Nonlinear Systems, *Chair: Shanjian Tang*		
	Serikbai A. Aisagaliev *Theory and constructive methods of solving the boundary problems of controllability processes (p.335)*	**Zbigniew J. Bartosiewicz** *Local observability, ideals, and finiteness conditions (p.336)*	**Shanjian Tang** *Brockett's problem of classification of finite-dimensional estimation algebras for Nonlinear Filtering Systems (p.352)*
Sect.: **17** H 2013	Multiobjective Optimization, *Chair: Jan-J. Ruckmann*		
	Jürgen Guddat *New Embeddings for Nonlinear Multiobjective Optimization Problems I (p.342)*	**Stefan M. Mititelu** *Optimality and duality in nonsmooth vector programming (p.345)*	

Short Communications: Friday, 21 August, 16:15–17:00

	16:15–16:30	16:30–16:45	16:45–17:00
Sect.: **03** MA 311	Algebraic Geometry I, *Chair: Jürgen Wolfart*		
	Emmanuel Peyre *Heights and Tamagawa measures (p.44)*	**Valentin E. Voskresenskii** *Stably rational algebraic tori (p.46)*	**Jürgen Wolfart** *Riemann surfaces with many automorphisms (p.47)*
Sect.: **04** MA 042	D-Modules/Vector Bundles I, *Chair: Sabir M. Gusein-Zade*		
	Aleksandr G. Aleksandrov *Gauß-Manin-Zusammenhang und logarithmische Picard-Fuchs-Systeme (p.49)*	**Vladimir Bavula** *The Simple Holonomic Modules over the Ring of Differential Operators on a Smooth Algebraic Surface (p.50)*	**Ushadevi N. Bhosle** *Moduli spaces of torsion-free sheaves on nodal curves (p.51)*
Sect.: **06** H 112	Geometric Topology, *Chair: Alexander N. Dranishnikov*		
	Dusan Repovs *On Banach-Mazur compacta and their geometric properties (p.96)*	**Washington Mio** *On the geometric topology of homology manifolds (p.94)*	**Arkady Skopenkov** *A Generalization of The Haefliger-Weber Theorem on Embeddings of Manifolds in $\mathbb{R}^m$ (p.97)*
Sect.: **09** H 111	Stability Theory of FDE, *Chair: Géza Makay*		
	Meirong Zhang *The Fučik Spectrum and its Generalization for Asymptotically Positively Homogeneous Systems of Differential Equations (p.197)*	**Mark R. Liberzon** *Inners and Absolute Stability of Time-Lag Systems (p.181)*	
Sect.: **09** H 110	Dynamical Properties of Mechanical Systems, *Chair: Dmitriy A. Chebanov*		
	Daniel Massart *On the convexity of the action of a Lagrangian (p.182)*	**Natalia Valeryevna Tkachenko** *About some new solutions in a problem about motion of a body in a magnetic field (p.193)*	**Dmitriy A. Chebanov** *New exact solutions of the problem about motion of Lagrange's gyroscopes system (p.173)*
Sect.: **11** H 107	Spectral Analysis I, *Chair: George D. Raikov*		
	Hermann Schulz-Baldes *Quantum dynamics in presence of fractal spectra (p.245)*	**Michael Demuth** *Stable absolutely and singularly continuous spectra due to integral conditions (p.232)*	**George D. Raikov** *Eigenvalue asymptotics for the Dirac operator in strong constant magnetic fields (p.243)*
Sect.: **11** H 1029	Thermodynamcis, Hydrodynamcis, Non-linear Dynamics I, *Chair: Volodymyr Kotlyarov*		
	Xinyu He *A probabilistic method for vortex motion in turbulent fluids (p.235)*	**Vladyslav V. Danishevs'kyy** *A New Asymptotic Technique for Nonlinear Dynamic Boundary Value Problems (p.231)*	**Volodymyr Kotlyarov** *Scattering problem for compatible ordinary differential equations and nonlinear Schrödinger equation on the semi-axis (p.238)*
Sect.: **13** H 106	Paths and Cycles, *Chair: Stephan Brandt*		
	Angeles Carmona *On the Shortest Paths in a Distance Regular Graph (p.275)*	**Min Aung** *A lower bound for the circumference of a graph in terms of connectivity and minimum degree (p.283)*	**Henda Swart** *Generalised Measures of Distance in Graphs (p.286)*
Sect.: **14** MA 043	Mathematical Aspects of Computer Science III, *Chair: Clemens Gröpl*		
	Barbu Gheorghe *A method for Computer Generation of Random Vectors (p.289)*	**Sven Hartmann** *New results on the consistency of cardinality constraints (p.292)*	**Stefan Felsner** *The Linear-Extension-Diameter (p.291)*
Sect.: **15** H 2033	Wavelets III (organized by Andreas Rathsfeld), *Chair: Pierre Gilles Lemarié-Rieusset*		
	Siegfried Prößdorf *Boundary element methods using multiwavelets (p.310)*	**Jörg Schult** *Stability condition for spline and multiwavelet collocation (p.312)*	**Marie Farge** *How to compute and model two-dimensional turbulent flows using wavelets?*

Short Communications: Friday, 21 August, 17:15–18:00

	17:15–17:30	17:30–17:45	17:45–18:00
Sect.: **03** MA 311	Modular Forms, *Chair: Yoichi Uetake*		
	Werner Hoffmann *Spectral estimates for noncompact quotients* (p.38)	**Wladimir de Azevedo Pribitkin** *Bol's identity, fractional differentiation, and automorphic integrals* (p.45)	**Yoichi Uetake** *A weak resolvent representation of a scattering matrix for automorphic functions* (p.46)
Sect.: **04** MA 042	Deformations and Degenerations, *Chair: Aleksandr G. Aleksandrov*		
	Kimio Miyajima *CR construction of the semi-universal family of normal isolated singularities* (p.57)	**Eduardo S. Esteves** *Degenerations of Weierstrass points* (p.52)	**Diego Paccagnan** *Maximum number of cusps on algebraic plane curves and nodes on surfaces* (p.59)
Sect.: **06** H 112	Hyperbolic 3-Manifolds, *Chair: Nikolai Gusevskii*		
	Vitalii S. Makarov *Regular maps and hyperbolic 3-manifolds* (p.92)	**Alexander D. Mednykh** *The volumes and isometries of Heegaard genus two hyperbolic three manifolds* (p.93)	**Andrei Yu. Vesnin** *On 3-manifolds with cyclic symmetry* (p.100)
Sect.: **09** H 111	Invariant Measures and Random Dynamics II, *Chair: Gerhard Keller*		
	Raphael Albrecht *Periodic data, intersection types, and conjugacy of profinite surface automorphisms* (p.169)	**Roman Hric** *Chaos and Topological Entropy in Onedimensional Dynamics* (p.177)	**Gerhard Keller** *Spectral stability of transfer operators under non-small perturbations* (p.178)
Sect.: **09** H 110	Multifrequence Systems and Invariant Tori, *Chair: Anatolij M. Samoilenko*		
	Chong-Qing Cheng *Aboundance of Lower Dimensional Invariant Tori in Hamiltonian Systems* (p.174)	**Miklós Rontó** *A numerical-analytic method for parametrized BVPs* (p.188)	**Anatolij M. Samoilenko** *Investigation of m-frequency oscillatory systems* (p.189)
Sect.: **11** H 107	Spectral Analysis II, *Chair: Andrey V. Tchourkin*		
	Mark M. Malamud *Inverse spectral analysis for first order systems* (p.240)	**Richard L. Hall** *Geometric spectral inversion* (p.235)	**Andrey V. Tchourkin** *Quantum stochastic model of gravitational wave interferometer detector* (p.246)
Sect.: **14** MA 043	Mathematical Aspects of Computer Science IV, *Chair: Stefan Felsner*		
	Svetlana Asmuss *On optimal algorithms of approximation under imprecise information* (p.289)	**Clemens Gröpl** *Random OBDDs* (p.292)	**Andrew Adamatzky** *On computation universality of excitable lattices*
Sect.: **15** H 2033	Partial Differential Equations III, *Chair: Jianping Zhu*		
	P. Sobolevskii *The "counter-example" to W. Littman's counter-example of L_p-energetical inequality for wave equation* (p.314)	**Ilja Schmelzer** *Grid Generation with Contravariant Geometry Description* (p.311)	
Sect.: **16** H 106	Interaction of Non-linear Waves, *Chair: Brian T. Hayes*		
	Motlatsi Pius Ramollo *On the motion of a bore across a barrier* (p.331)	**Saadet Erbay** *Nonlinear interaction between long and short waves in a generalized elastic solid* (p.323)	**Brian T. Hayes** *Stress-Controlled and Velocity-Controlled Shear Waves in a Saturated Granular Medium* (p.323)

Poster Session: Friday, 21 August, 14:00–15:45

Sect.: **08** MA 144	Analysis		
	Jelena Ausekle *Compactness of Operators Acting in the Lorentz and Orlicz Sequence Spaces* (p.115)	**Prodipeswar Bhattacharyya** *On the domain of normality in iteration theory* (p.117)	**Davor Butkovic** *Transformations of regular almost convergent sequences* (p.119)
	Rainis Haller *$M(r,s)$-inequality and reflexivity* (p.128)	**Katsunori Iwasaki** *Polyhedral harmonic functions and invariant theory* (p.132)	**Volodymyr M. Kadets** *The Lyapunov property of certain Banach spaces* (p.133)
	Shuichi Ohno *Topological structure of the space of composition operators on H^∞* (p.145)	**Eve Oja** *Lifting approximation properties and ideals of compact and approximable operators* (p.145)	**Zdzislaw Otachel** *Cone Preorders in Measurable Function Spaces* (p.145)
	Märt Põldvere *On subspaces of Banach spaces having Phelps' uniqueness property* (p.148)	**Sen-Yen Shaw** *Convergence rates of regularized approximation processes* (p.156)	**Panagiotis D. Stratigos** *On general measure repleteness and completeness* (p.158)
Sect.: **13** MA 144	Combinatorics		
	André Kündgen *Turán problems for weighted graphs* (p.280)	**Frank H. Lutz** *Combinatorial manifolds with vertex-transitive automorphism group* (p.281)	**Slobodan K. Simić** *On graphs whose second largest eigenvalue does not exceed the golden section* (p.284)
	Indulis Strazdins *Universal classification of Boolean functions by the affine and linear groups* (p.285)	**Kai-Yao Xiang** *The Minimal Group with Graph and Its Permutation Elements* (p.287)	**Tomoyuki Yoshida** *Exponential formulas and Krull-Schmidt categories* (p.288)

Poster Session: Friday, 21 August, 16:15–18:00

Sect.: **05**
MA 144

Differential Geometry and Global Analysis

Philip P. Boalch *Symplectic geometry and isomonodromic deformations* (p.65)	**Ilia A. Bogaevski** *Singularities of convex hulls of closed hypersurfaces* (p.65)	**Cristina Draper** *Algebras related to Lie triple systems and applications to differential geometry* (p.67)
Birte Feix *Hyperkähler metrics on cotangent bundles* (p.68)	**Lew Friedland** *Spectral geometry on almost Hermitian manifolds* (p.69)	**Vladimir A. Geyler** *Periodic point interactions on a Riemannian manifold* (p.251)
Valery Konnov *Differential geometry of algebraic manifolds* (p.73)	**Alexei G. Kovalev** *Gluing theorems for anti-self-dual metrics* (p.73)	**Vasily Olegovich Manturov** *Vertical Atoms, Chord Diagrams, and Knots* (p.76)
Stana Nikcevic *Curvature Homogeneous Spaces and Related Topics* (p.77)	**Marc Pauly** *Singular monopoles on compact 3-manifolds* (p.77)	**Vyacheslav D. Sedykh** *On classes of convex curves in projective spaces* (p.80)
Mamuka Shubladze *The topology of hypersurface singularities with codimension one* (p.80)	**Peter Topalov** *A family of 3-integrable metrics* (p.83)	**Paweł Walczak** *Foliations, finitely generated groups, and pseudogroups of transformations of manifolds carry some dynamics* (p.83)
Zuoling Zhou *The Hausdorff measures of Sierpinski gasket and Koch curve* (p.84)		