Tuesday, 25 August

Short Communications and Poster Sessions

Short Communications: Tuesday, 25 August, 14:00–14:45

	14:00–14:15	14:15–14:30	14:30–14:45
Sect.: **01**	Set Theory and Recursion Theory, *Chair: Robert Fittler*		
MA 042	**Philip D. Welch** *The Length of Infinite Time Turing Machine Computations* (p.11)	**Martin Zeman** *◇ at Mahlo Cardinals* (p.11)	**Marat-M. Arslanov** *The enumeration degree structures* (p.5)
Sect.: **02**	Rings and Modules II, *Chair: Christine Bessenrodt*		
MA 311	**Sergey P. Strunkov** *On p-blocks of minimal defect in a finite group and Gelfand pairs* (p.29)	**Johannes H. Meyer** *Forcing Linearity Numbers* (p.23)	**Hossein Zand** *Duality in radicals of associative rings* (p.32)
Sect.: **05**	Affine Differential Geometry, *Chair: Salvador D.R. Gigena*		
MA 041	**Kurt Leichtweiß** *On the infinitesimal affine rigidity of ellipsoids in the n-space* (p.74)	**Christine Scharlach** *Affine Hyperspheres* (p.79)	**Salvador D.R. Gigena** *On Affine Hypersurfaces with Constant Sectional Curvature* (p.70)
Sect.: **05**	General Geometric Structures on Manifolds, *Chair: Lutz Weimann*		
MA 043	**Sergey V. Zuev** *Analytic continuations of $SU(2n)$-invariant Ricci-flat Kähler metric*	**Claudio Gorodski** *Contact Sub-Riemannian Symmetric Spaces* (p.70)	**Artur E. Fischer** *The Adjoint Formulation and Symplectic Reduction* (p.68)
Sect.: **06**	2-Manifolds and Related Questions, *Chair: Carl-Friedrich Bödigheimer*		
H 112	**José-Luis Estévez** *A presentation for the mapping class group of a non-rientable surface from Hatcher and Thurston's* (p.87)	**Dmitri V. Millionshikov** *Krichever-Novikov algebras* (p.93)	**Andreas Zastrow** *Planar Sets are Aspherical* (p.100)
Sect.: **09**	Large-Time Behavior, *Chair: Martin Brokate*		
H 111	**Ivan Kiguradze** *On explosive kneser solutions of nonlinear ordinary differential equations* (p.179)	**Matthias Wolfrum** *A geometrical description for the attractors of semilinear parabolic PDE* (p.194)	**Martin Brokate** *On a rate independent variational inequality* (p.173)
Sect.: **09**	Topological Dynamics, *Chair: Fritz Boese*		
H 110	**Sergey Bezuglyi** *Full groups of minimal homeomorphisms of Cantor sets* (p.171)	**Fritz Boese** *Unilluminable Rooms* (p.171)	
Sect.: **11**	q-Deformation, Quantization, *Chair: Markus J. Pflaum*		
H 107	**Hitoshi Konno** *Elliptic quantum groups* (p.237)	**Andreas Ruffing** *On Schrödinger-Hermite Operators in Lattice Quantum Mechanics* (p.243)	**Markus J. Pflaum** *Remarks on the quantization of stratified symplectic manifolds* (p.242)
Sect.: **11**	Mathematical Methods in Physics I, *Chair: Mikhail Brodsky*		
H 1029	**Boris V. Loginov** *Bifurcation theory methods in the problem about capillary-gravity waves in spatial layer of floating fluid* (p.239)	**Nina F. Golovanova** *Eiconal expansion solution for T-matrix equation and the unitarity condition* (p.234)	**Anton A. Golovanov** *Solution of the T-matrixs equation by the eikonal expansion method* (p.234)
Sect.: **13**	Subgraphs, *Chair: Béla Bollobás*		
H 106	**Oliver M Riordan** *Spanning subgraphs of random graphs* (p.284)	**Diane M. Spresser** *Graphs with degree sets of maximal cardinality II* (p.285)	**Andrew G. Thomason** *Hereditary hypergraph properties* (p.286)
Sect.: **17**	Distributed Parameter Systems II, *Chair: Mikhail Zelikin*		
H 2033	**Andrzej Just** *A Non-linear Hyperbolic Control Problem with Dirichlet Boundary Condition — Convergence of Galerkin Approximation* (p.343)	**Dan Tiba** *Recent Progress in the Analysis and Optimization of Plates* (p.352)	**Mikhail Zelikin** *Riccati-type PDE and Multidimensional Calculus of Variations* (p.356)
Sect.: **19**	19th Century, *Chair: Herbert A. David*		
H 2013	**Mircea Radu** *Justus Grassmann's Account of Synthesis in Mathematics: between Schelling and Kant* (p.368)	**Heiner Lichtenberg** *The decoding of the Callippian Cycle in the Gregorian Calendar for the period between 1900 and 2099* (p.367)	**Herbert A. David** *Early sample measures of variability* (p.366)

Short Communications: Tuesday, 25 August, 15:00–15:45

	15:00–15:15	15:15–15:30	15:30–15:45
Sect.: **01** MA 042	Model Theory and Recursion Theory, *Chair: Andreas Baudisch*		
	Mikhail Peretyat'kin *Expressive possibilities of finitely axiomatizable theories (p.9)*	**Niandong Shi** *Universal graph problem and model theory (p.10)*	**Helmut Schwichtenberg** *Ramification, Modality, and Linearity in Higher Type Recursion (p.10)*
Sect.: **02** MA 311	Miscellaneous, *Chair: Corinna Wiedorn*		
	Martin Goldstern *Interpolation of monotone functions in lattices (p.18)*	**Ming-Chang Kang** *Rationality of Some Projective Linear Actions (p.19)*	**Vyacheslav A. Artamonov** *Quantum polynomial algebra is a multiparameter deformation of an algebra of polynomials, i.e. it is the algebra of regular functions on a quantum affine space (p.12)*
Sect.: **05** MA 041	Geodesics and Distance, *Chair: Jin-ichi Itoh*		
	Minoru M.T. Tanaka *Sard Theorem for the distance function (p.82)*	**Lilia Del Riego** *Exponential map for general sprays and connections (p.66)*	**Jin-ichi Itoh** *The Lipschitz continuity of the distance function to the cut locus (p.72)*
Sect.: **05** MA 043	Lorentz Manifolds, *Chair: Franki Dillen*		
	Andrzej Krolak *Cauchy Horizon Endpoints and Differentiability (p.74)*	**Angel L. Garrido Bullon** *Foliations of Lorentz manifolds (p.66)*	**Franki Dillen** *Ruled Weingarten surfaces in Minkowski space (p.66)*
Sect.: **06** H 112	Algebraic Topology III, *Chair: Leonard Mdzinarishvili*		
	Ivan Ivansic *Borsuk's Index and Pointed Movability for Projective Movable Continua (p.89)*	**Sibe Mardesic** *Strong shape for topological spaces (p.92)*	**Mihkail M. Postnikov** *Totality versus naturality (p.95)*
Sect.: **08** MA 309	Miscellaneous, *Chair: Eberhard Kirchberg*		
	Eberhard Kirchberg *Classification of non-simple nuclear C*-algebras*	**Volodymyr K. Maslyuchenko** *Separately continuous mappings: Van Vleck spaces and inverse problems*	
Sect.: **09** H 111	Holomorphic and Symbolic Dynamics, *Chair: Mitsuhiro Shishikura*		
	Dierk Schleicher *On iterated exponential maps (p.190)*	**George Osipenko** *Applied Symbolic Dynamics (p.185)*	**Mitsuhiro Shishikura** *Rigidity of complex quadratic polynomials and the universal Teichmüller space (p.191)*
Sect.: **11** H 107	Integrable Systems II, *Chair: Karl-Georg Schlesinger*		
	Vitaly Tarasov *q-Hypergeometric solutions of the quantized Knizhnik-Zamolodchikov equation (p.245)*	**Vladimir Dragovic** *Integrable generalizations of classical mechanical systems (p.232)*	**Karl-Georg Schlesinger** *Quantum geometry by non-abelian cohomology (p.244)*
Sect.: **11** H 1029	Mathematical Methods in Physics II, *Chair: Boris V. Loginov*		
	Mikhail Brodsky *A Physicist's Definition of the Schwarz Function (p.229)*	**Joyati Debnath** *Associated Transforms Through a Mathematical Software System (p.231)*	**Andrei Khrennikov** *p-adic realization of negative probabilities and Einstein-Podolsky-Rosen paradox (p.236)*
Sect.: **13** H 106	Finite Groups and Cayley Graphs, *Chair: Andreas W.M. Dress*		
	Reinaldo Giudici *Cayley's Graphs of order 12 (p.276)*	**Cai-Heng Li** *On Isomorphisms of Finite Cayley Graphs (p.280)*	**Mikhail H. Klin** *On transitive permutation groups without semi-regular subgroups (p.279)*
Sect.: **17** H 2033	Stochastic Programming I, *Chair: Werner Römisch*		
	Vladimir Norkin *Stochastic optimization of discontinuous functions (p.346)*	**Nicole Groewe-Kuska** *Confidence intervals for optimal values of simple recourse models (p.341)*	**Rüdiger Schultz** *Mixed-Integer Linear Programming under Uncertainty (p.350)*
Sect.: **19** H 2013	Data Bases, *Chair: Patrick D.F. Ion*		
	June E. Barrow-Green *Mathematics in Britain 1860-1940: a database for the World Wide Web (p.365)*	**Harry B. Coonce** *The Genealogy Project for Mathematicians (p.365)*	**Patrick D.F. Ion** *The symbolism of mathematics: from pasigraphy in 1897 to MathML in 1998 (p.367)*

Short Communications: Tuesday, 25 August, 16:15–17:00

	16:15–16:30	16:30–16:45	16:45–17:00
Sect.: **03** MA 311	Arithmetic Functions, *Chair: Yasutoshi Nomura*		
	Philippe Ph. Elbaz-Vincent *On Poly(ana)logs* (p.35)	**Arne Winterhof** *On Incomplete Character Sums* (p.47)	**Yasutoshi Nomura** *Arithmetic functions associated with arithmetic-geometric mean quotients* (p.44)
Sect.: **04** MA 042	Surfaces/Higher-Dimensional Varieties II, *Chair: Vasile P. Brinzănescu*		
	Alberto Conte *On the unirationality of quartic hypersurfaces* (p.52)	**Fabrizio M.E. Catanese** *Bidouble covers and surface geography* (p.51)	**Remo Gattazzo** *Almost factorial quartic surfaces in $\mathbb{P}^3_{\mathbb{C}}$ with a tacnodal point* (p.52)
Sect.: **07** H 112	Various Topics I, *Chair: Michael Forger*		
	Lizhen Ji *The trace class conjecture in the Selberg trace formula* (p.106)	**Alexander Baranov** *Finitary simple Lie algebras* (p.101)	**Michael Forger** *Symmetry and Symmetry Breaking: An Algebraic Approach to the Genetic Code* (p.104)
Sect.: **08** H 110	Hilbert Spaces, Wavelets, and Fractals, *Chair: Gerald S. Goodman*		
	Kofi V.S. Assiamoua *A product of sesquilinear mappings on Hilbert spaces* (p.114)	**Raquel-Garcia Catalan** *From MRA to Tight Frames* (p.120)	**Gerald S. Goodman** *Dilation equations and Hutchinson fractals* (p.126)
Sect.: **08** MA 041	Real and Complex Approximation, *Chair: Mirela Kohr*		
	Nikolai Ya. Radyno *Some elements of a General Spectral Theory of Banach modules and their applications* (p.150)	**Oxana V. Motornaya** *On the Approximation of the Functions by Algebraic Polynomials* (p.142)	**Andrey Olegovich Matveev** *Error estimates for scattered data interpolation*
Sect.: **08** MA 309	Spectral Analysis and Operator Algebras, *Chair: Sa Ge Lee*		
	Antoine-A.P. Bredimas *Schlicht functions and exotic sprectral analysis: Applications to some conjectures and problems in analysis* (p.118)	**Valentyn Ja. Golodets** *Dynamical entropy and quantum K-systems* (p.126)	**Sa Ge Lee** *The generalized normal state space and unital normal completely positive map* (p.139)
Sect.: **08** MA 043	Matrix and Operator Functions, *Chair: George N. Khimshiashvili*		
	Marcin J. Zygmunt *Matrix Moment Problem* (p.167)	**Frank-Olme Speck** *Relations between convolution type operators on intervals and on the half-line* (p.157)	**George N. Khimshiashvili** *Homotopy classes of elliptic boundary problems* (p.134)
Sect.: **10** H 111	Elliptic Equations V (Fourier and Harmonic Analysis), *Chair: Pawel Strzelecki*		
	Alip Mohammed *Riemann problem related to the Shilov boundary* (p.214)	**Dian K. Palagachev** *Oblique derivative problem for uniformly elliptic operators with VMO coefficients and applications* (p.216)	**Paweł Strzelecki** *Regularity for subelliptic p-harmonic maps and the ghost of Hardy spaces* (p.222)
Sect.: **12** H 107	Brownian Motion I, *Chair: Jean-Pierre Imhof*		
	Frank B. Knight *On the moments of the area functional of Brownian bridge* (p.256)	**Andrei Nikolaevich Borodin** *Distributions of functionals of a particular non-Markov process* (p.249)	**Peter Mörters** *Pathwise Kallianpur Robbins laws for planar Brownian motion* (p.262)
Sect.: **12** H 1029	Time Series Analysis, *Chair: Alexander Frolovich Taraskin*		
	Mirta Benšić *Asymptotic properties of the least square estimators in regression models with singular errors* (p.248)	**Uwe Hassler** *When Do Polynomial Regressions of Nonstationary Fractionally Integrated Processes Make Sense?* (p.252)	**Pavel S. Knopov** *Asymptotic Properties of Non-Linear Estimators for Some Non-Stationary Regression Models* (p.256)
Sect.: **15** H 2033	Partial Differential Equations VI, *Chair: Ivanka P. Nikolova*		
	Ivanka P. Nikolova *Modeling of Fluid Flows with Strong Non-Linearity* (p.307)	**Christian von Törne** *Method of Transport — A Multidimensional Scheme for Nonlinear Hyperbolic Systems* (p.317)	**Nicolai von Schroeders** *Die numerische Lösung der schwachen Formulierung des Stokes-Systems im Außenraumgebiet* (p.317)
Sect.: **16** H 106	Applications in Mechanics, *Chair: Vadim D. Potapov*		
	Mikhail Dmitrievich Kovalev *Stability of hinged schemes and frameworks* (p.326)	**Xing Li** *Doubly Periodic Punctured Plane Elasticity Problem with Relative Displacement* (p.327)	**Vadim D. Potapov** *Stability of systems under stochastic parametric excitation* (p.331)
Sect.: **17** H 2013	Game Theory, *Chair: Hans Josef Pesch*		
	Arkadii A. Chikrii *— to be announced —* (p.338)	**Greta Tsolakovna Chikrii** *Linear Differential Games with Variable Delay of Information* (p.337)	**Victor V. Zakharov** *Subcore and reduced cooperative games* (p.355)

Short Communications: Tuesday, 25 August, 17:15–18:00

	17:15–17:30	17:30–17:45	17:45–18:00
Sect.: **03** MA 311	Analytic Number Theory II, *Chair: Jan-Christoph Puchta*		
	Julio Alcantara-Bode *Reorderings of some divergent series and applications* (p.34)	**Michel L. Lapidus** *Complex Dimensions of Fractal Strings and Oscillatory Phenomena in Fractal Geometry and Arithmetic* (p.40)	**Jan-Christoph Puchta** *Estimating Dirichlet L-serieses close to the line $1+it$* (p.45)
Sect.: **04** MA 042	Surfaces/Higher-Dimensional Varieties III, *Chair: Fabrizio M.E. Catanese*		
	Marina R. Marchisio *Some new examples of smooth unirational quartic threefolds* (p.56)	**Uwe Nagel** *Characterization of projective subschemes by locally free resolutions* (p.57)	**Tomasz Szemberg** *Higher order embeddings and Seshadri constants of abelian varieties* (p.61)
Sect.: **07** H 112	Various Topics II, *Chair: Alexander Baranov*		
	Thomas Bouetou *About Bol algebras* (p.102)	**Lyudmyla L. Barannyk** *On an algorithm for classifying subalgebras of the Poincaré algebra $AP(2,n)$*	
Sect.: **08** H 110	Analytic Functions II, *Chair: Mohamed Abdel-Megied*		
	Gueorgui S. Litvinchuk *On solvability theory of Hilbert boundary value problem with a Carleman shift* (p.139)	**Mirela Kohr** *A direct boundary integral formulation for a Stokes flow problem* (p.135)	**Rauno Aulaskari** *Q_p-spaces on Riemann surfaces* (p.115)
Sect.: **08** MA 041	Nonlinear Operators, *Chair: Richard M. Dudley*		
	Radoje Šćepanović *On Solvability of Some Nonlinear Equations in Hilbert Spaces* (p.154)	**Vladilen A. Trenogin** *Parameter continuation method and solvability of nonlinear equations* (p.160)	**Richard M. Dudley** *Differentiability of six nonlinear operators on nonsmooth functions* (p.122)
Sect.: **08** MA 309	Convexity, Banach Spaces, and Isometries, *Chair: Themistocles M. Rassias*		
	Alexander Ya. Kruger *On extremality of set systems* (p.137)	**Ryszard Grząślewicz** *Quasi-interior points for convex sets* (p.128)	**Themistocles M. Rassias** *On the Mazur-Ulam Theorem and the Aleksandrov Problem of Conservative Distances* (p.151)
Sect.: **08** MA 043	Sequence and Function Spaces, *Chair: Jan H. Fourie*		
	Abdul J. Badiozzaman *On a Tauberian Theorem of G.M. Petersen for Abel Summability* (p.116)	**Detlef Seydel** *Matrix Maps of Quasiconvex Null Sequences* (p.155)	**Jan H. Fourie** *On convergence of sections of weakly p-summable sequences* (p.123)
Sect.: **10** H 111	Parabolic Equations, *Chair: Nicolay Draganov Kutev*		
	Helmut Koch *Large time regularity of solutions to the porous medium equation* (p.210)	**Bernd Kawohl** *Image processing and anisotropic diffusion* (p.208)	**Nicolay Draganov Kutev** *Maximum and comparison principle for anisotropic diffusion* (p.212)
Sect.: **12** H 107	Brownian Motion II, *Chair: Frank B. Knight*		
	Viet Ha Hoang *Singularly perturbed Dirichlet problems in randomly perforated domains* (p.253)	**Vesna Perisic** *On some energy inequalities* (p.265)	
Sect.: **12** H 1029	Statistics for Random Fields, *Chair: Alexander Frolovich Taraskin*		
	Nikolai Leonenko *Parameter identification for stochastic Burgers flows via parabolic rescaling* (p.258)	**Nadiya Zinchenko** *Asymptotic Properties of Stable Processes and Fields* (p.273)	**Molisen M. Mohammadzadeh** *Spectral Approximation to the Likelihood for an Intrinsic Gaussian Random Field*
Sect.: **15** H 2033	Partial Differential Equations VII, *Chair: Ursula van Rienen*		
	Maxim A. Olshanskii *Iterative method for generalized Stokes problem* (p.308)	**Chi-Wang Shu** *High Order Weighted ENO Schemes for Unstructured Meshes* (p.314)	**Ursula van Rienen** *Efficient Algorithms in Electromagnetic Field Computation* (p.316)
Sect.: **17** H 2013	Optimality Conditions II, *Chair: Henrikas Pragarauskas*		
	Oleg I. Nikonov *Methods of Guaranteed Control Theory in Finance* (p.345)	**Oleg Vladimirovich Vasiliev** *High quality computational methods for optimal control problems* (p.353)	**Henrikas Pragarauskas** *Integrodifferential Bellman equations* (p.348)

Poster Session: Tuesday, 25 August, 14:00–15:45

Sect.: **10**
MA 144

PARTIAL DIFFERENTIAL EQUATIONS

Faina S. Berezovskaya *About solutions Ltraveling waves of Lienard equation cross-diffusion updatings (p.198)*	**Roland Duduchava** *Asymptotics of solutions to crack–type and mixed problems (p.202)*	**Atsuhiko Eida** *Harmonic Analysis of Functions (p.203)*
Kenji Hasegawa *Boundedness of Pseudodifferential Operators (p.206)*	**Toshio Horiuchi** *Removable singularities for quasilinear degenerate elliptic equations with absorption terms (p.206)*	**Jaan Janno** *Inverse problems for determining weakly singular kernels in partial integrodifferential equations (p.207)*
Akisato Kubo *Global existence of a classical solution to* $\Box u - \mu u + au^m = 0$ *(p.212)*	**Tokumori Nanbu** *On solutions of some nonlinear degenerate parabolic equations (p.215)*	**Dmitry Shepelsky** *Inverse problem for a stratified uniaxial bianisotropic medium (p.220)*
Yuming Shi *A Foias-Saut type of expansion for a dissipative wave equation (p.221)*	**Georgi V. Smirnov** *A Periodic Knitting Problem for the Helmholtz Equation (p.222)*	**Anna Surkova** *On the localization of the surface states for some class of the discrete Schrödinger oparators with surface potential*
Kiyoshi Takeuchi *Higher-codimensional boundary value problems for D-modules (p.222)*	**Jan Turo** *Solution of first order stochastic functional partial differential equations via integral contractors (p.223)*	**Leonid Volevich** *Stable and unstable manifolds for elliptic equations with parameter (p.223)*

Poster Session: Tuesday, 25 August, 16:15–18:00

Sect.: **09**
MA 144

ORDINARY DIFFERENTIAL EQUATIONS AND DYNAMICAL SYSTEMS

Alina Gleska *Comparison theorems for the asymptotic behavior of solutions of difference equations (p.176)*	**Renato Iturriaga** *Lagrangian Graphs, Minimizing Measures, and Mañe's Critical Values (p.178)*	**Géza Makay** *Marachkov type stability results for functional differential equations (p.181)*
Malgorzata Migda *On the asymptotic behavior of solutions of nonlinear difference equation (p.183)*	**Norihiro Misaki** *Application of Apparent Monodromy Groups (p.183)*	**Hiroe Oka** *Connectivity of iso-topological entropy curve for symmetric PL bimodal maps (p.185)*
S. Mary Rees *Using Teichmüller Geometry (p.187)*	**Johannes Riedl** *On Crossed Renormalization of Quadratic Polynomials (p.187)*	**Stefan Siegmund** *Normal Forms for Nonautonomous Differential Equations of Carathéodory Type (p.191)*
Jarosław Werbowski *Oscillatory solutions of functional equations (p.194)*	**Inna Sergeevna Yemelyanova** *Emmy Noether theorem assimilation in classical dynamics (p.195)*	**Piotr Zgliczynski** *Sharkovskii theorem for multidimensional perturbations of 1-dim maps (p.196)*