Wednesday, 26 August

Short Communications and Poster Sessions

Short Communications: Wednesday, 26 August, 14:00–14:45			
	14:00–14:15	**14:15–14:30**	**14:30–14:45**
Sect.: **03**	FUNCTION FIELDS AND CURVES II, *Chair: Dmitry Logachev*		
MA 311	**Sudhir R. Ghorpade** *Number of Points of Singular Varieties over Finite Fields (p.37)*	**Seman Wong** *On the density of elliptic curves (p.47)*	**Dmitry Logachev** *Mazur–Bloch method for Siegel threefolds (p.41)*
Sect.: **04**	SURFACES/HIGHER-DIMENSIONAL VARIETIES IV, *Chair: Viktor S. Kulikov*		
MA 042	**Yuri G. Prokhorov** *Mori contractions of relative dimension* 1 *(p.59)*	**Maria Cristina Ronconi** *Algebraic threefolds with* $\mathbf{q_1 = q_2 = p_g = 0, P_{2i} = 1,}$ *and* $\mathbf{P_{2i+1} = 0}$ *(p.60)*	**Ezio Stagnaro** *Pluricanonical maps of two general type threefolds with* $\mathbf{p_g = 0}$ *(p.60)*
Sect.: **06**	ALGEBRAIC TOPOLOGY OF MANIFOLDS, *Chair: Lawrence W. Conlon*		
H 112	**Ulrich Koschorke** *μ-invariants of link maps in arbitrary manifolds (p.90)*	**Yuri V. Muranov** *Surgery and splitting obstruction groups for one-sided submanifolds (p.94)*	**Gerard A. Venema** *Representing homology classes of 4-manifolds (p.99)*
Sect.: **08**	SPECIAL FUNCTIONS, *Chair: Promarz M. Tamrazov*		
MA 041	**Raoul R.F.G. Gloden** *Propriétés des polynômes orthogonaux. Développements de cas particuliers (p.126)*	**Kathy A. Driver** *Zeros of Hypergeometric Functions (p.121)*	**Momčilo Bjelica** *Asymptotic of means (p.117)*
Sect.: **08**	METRIZABLE SPACES, RIESZ SPACES, AND INTEGRAL REPRESENTATIONS, *Chair: Paul Ressel*		
MA 309	**Shozo Koshi** *Partially ordered linear space (p.136)*	**Luis M. Sánchez Ruiz** *On Metrizable Barreled Spaces, Cardinals and Dimensionality (p.153)*	**Paul Ressel** *Semigroup representations, positive definite functions, and abelian C*-algebras (p.152)*
Sect.: **08**	OPERATOR ALGEBRAS AND SYSTEMS, *Chair: Palle E.T. Jorgensen*		
MA 043	**B.V. Rajarama Bhat** *Minimal dilation of quantum dynamical semigroups to semigroups of endomorphisms (p.116)*	**Wend Werner** *Operator Systems without Unit (p.163)*	**Palle E.T. Jorgensen** *Ruelle operators: Functions which are harmonic with respect to a transfer operator (p.133)*
Sect.: **10**	PDE AND DYNAMICAL SYSTEMS, *Chair: Alexandre Kometch*		
H 111	**Andrey Yu. Goritsky** *Integral manifolds with exponential tracking (p.204)*	**Jörg Härterich** *Heteroclinic Orbits Between Rotating Waves in Hyperbolic Balance Laws (p.205)*	**Alexandre Kometch** *Attractors for Hamiltonian Nonlinear Wave Equations (p.210)*
Sect.: **10**	NON-LINEAR THEORY, *Chair: Masafumi Yoshino*		
H 110	**Vladimir Kozlov** *Singularities of solutions of nonlinear elliptic equations (p.211)*	**Sidi Mohammed Bouguima** *Free boundary problem in the plane (p.199)*	**Masafumi Yoshino** *Global solvability of fully nonlinear equations and Toeplitz operators (p.225)*
Sect.: **12**	GAUSSIAN PROCESSES, *Chair: Manfred Breger*		
H 107	**Krzysztof Dębicki** *Asymptotic of the tail distribution of supremum from a Gaussian process (p.250)*	**Tudor Sireteanu** *An extension of Gaussian equivalent linearization (p.270)*	**Victoria Parkhomenko** *Spectral representation of the scaling limit solutions of the Burgers' equation with random data (p.265)*
Sect.: **12**	NONPARAMETRIC CURVE ESTIMATION, *Chair: Joerg Polzehl*		
H 1029	**Renfang Jiang** *The mean sum of squared error of a wavelet based multinomial density estimator (p.255)*	**Eva Herrmann** *Visualization of empirical test results for pseudorandom number generators (p.253)*	**Hua Liang** *Partially linear errors-in-variables model (p.258)*
Sect.: **16**	OPTIMIZATION, *Chair: Uwe T. Zimmermann*		
H 106	**Ludwig Cromme** *Optimization of a Production Line in Brown Coal Industry (p.321)*	**Ludwig Kohaupt** *Optimization for an Exhaust Emission Problem by the Simplex Method — A Report on Work from the Automotive Industry - (p.326)*	**Uwe T. Zimmermann** *Hard Integer Programming Problems from Railroad Planning (p.334)*
Sect.: **17**	STOCHASTIC PROGRAMMING II, *Chair: Vladimir Norkin*		
H 2033	**René Henrion** *Quantitative stability of convex stochastic programs with probabilistic constraints (p.342)*	**Werner Römisch** *Perturbation Analysis of Stochastic Programming Problems (p.349)*	**Roger Fandom Noubiap** *A Minimax Algorithm for Calculating Statistical Tests under Generalized Moment Conditions (p.340)*
Sect.: **17**	MISCELLANEOUS I, *Chair: Mohamed Ali Hammami*		
H 2013	**Tomáš Roubíček** *Relaxation in optimization theory and variational calculus*	**Mohamed Ali Hammami** *Stabilization of a certain class of nonlinear systems via an observer*	

Short Communications: Wednesday, 26 August, 15:00–15:45

	15:00–15:15	15:15–15:30	15:30–15:45
Sect.: **02**	ALGEBRAS III, *Chair: Shavkat A. Ayupov*		
MA 311	**Bernhard Drabant** *Cross Product Bialgebras (p.17)*	**Alexander A. Mikhalev** *Free Leibniz algebras (p.23)*	**Daouda Sangare** *Hilbert quasi-polynomial functions and generalized analytic spread (p.27)*
Sect.: **02**	CATEGORIES, *Chair: Reinhard Börger*		
MA 042	**Hvedri Inassaridze** *Karoubi's Conjecture for polynomial extensions of stable C*-algebras (p.19)*	**Fred E.J. Linton** *Banach Spaces Monadic over Free Pointed Cones (p.22)*	**Siaka Kante Bamba** *On quadratic modules (p.13)*
Sect.: **06**	LUSTERNIK-SHNIRELMANN CATEGORY, *Chair: Hans Scheerer*		
H 112	**Jean-Michel Lemaire** *Rational Lusternik-Schnirelmann category of Poincaré complexes (p.91)*	**Yuli B. Rudyak** *Lusternik–Schnirelmann category of symplectic manifolds and the Arnold conjecture (p.96)*	
Sect.: **08**	KLEINIAN GROUPS, *Chair: Alexander Jur'evich Vasil'ev*		
MA 041	**Ruben A. Hidalgo** *$\mathcal{A}_4$, $\mathcal{A}_5$, and $\mathcal{S}_4$ of Schottky Type (p.130)*	**Weiqi Yang** *Discrete groups and dense groups (p.164)*	**Javier Pérez** *Harmonic differentials on Klein Surfaces (p.147)*
Sect.: **08**	ANALYTIC FUNCTIONS AND TOEPLITZ OPERATORS, *Chair: Marek Ptak*		
MA 309	**Ali Abkar** *A comparison theorem concerning hyperinvariant subspaces on finitely connected domains (p.113)*	**Slavko Simic** *Entire Functions of Finite Order and Regularly Varying Sequences (p.156)*	**Marek Ptak** *Toeplitz operators; dichotomy of reflexivity and transitivity (p.149)*
Sect.: **08**	OPERATOR ALGEBRAS AND ALGEBRAS OF OPERATORS, *Chair: Vladimir Manuilov*		
MA 043	**Raphael S. Ponge** *Wodzicki Residue for Heisenberg Manifolds (p.148)*	**Georgios F. Nassopoulos** *Coproducts and projective presentations of operator algebras (p.144)*	**Vladimir Manuilov** *Almost representations of discrete groups and K-theory (p.140)*
Sect.: **09**	NONLINEAR EVOLUTION EQUATIONS, *Chair: Michael V. Pomazanov*		
H 1029	**Valery A. Gaiko** *Global bifurcation theory and multiple limit cycles*	**Samuel S. Okoya** *A criterion for solutions of a model quasilinear parabolic equation*	**Michael V. Pomazanov** *About the structure of some typical singularities in implicit ordinary differential equations*
Sect.: **10**	HYPERBOLIC EQUATIONS IV (GENERAL THEORY), *Chair: Pavel A. Krutitskii*		
H 111	**Ludmila S. Pulkina** *A nonlocal problem for the hyperbolic equation (p.217)*	**Peetta Kandy Ratnakumar** *Wave Equation for the Hermite Operator (p.218)*	**Pavel A. Krutitskii** *Initial-boundary value problems in multiply connected domains for an equation of composite type (p.212)*
Sect.: **10**	APPLIED PROBLEMS II (ELASTICITY & FUSION), *Chair: Juan Francisco Padial*		
H 110	**Alexander A. Kosmodemyanskii** *On the location of fail points in Torsion Problem (p.211)*	**Juan Francisco Padial** *Some mathematical models related to nuclear fusion (p.216)*	
Sect.: **11**	ALGEBRAIC METHODS IN PHYSICS, *Chair: Victor V. Zharinov*		
H 107	**Andrej V. Bulinskij** *On dynamical semigroups compatible with states of von Neumann algebras (p.229)*	**Fernando F. Lledó** *On some algebraic properties of massless free nets (p.239)*	**Victor V. Zharinov** *On derivations of the Heisenberg algebra (p.246)*
Sect.: **16**	NUMERICAL APPLICATIONS OF MATRIX THEORY, *Chair: Dmitrii O. Logofet*		
H 106	**Igor N. Lyashenko** О неотрицательных решениях межотраслевой модели Леонтьева-Форда (p.329)	**Dmitrii O. Logofet** *When matrix "flowers" help proving theorems on stability (p.328)*	**Gennady Victorovich Alferov** *Motion Planning for Multi — Agent Systems in the Time — Varying Environments*
Sect.: **17**	SEMI-INFINITE AND SEMI-DEFINITE OPTIMIZATION, *Chair: René Henrion*		
H 2033	**Jan-J. Ruckmann** *On Generalized Semi-infinite Optimization Problems (p.349)*	**Oliver Stein** *On level sets of marginal functions (p.351)*	**Ivo Nowak** *Bézier-Semidefinite Relaxations of nonconvex quadratic programs over a simplex (p.346)*
Sect.: **17**	MISCELLANEOUS II, *Chair: Roland Wessäly*		
H 2013	**Ingo Bremer** *Experiences with the Optimization of Batch Distillation Processes*	**Rafail Gabasov** *Synthesis of optimal dynamical systems*	**Roland Wessäly** *New inequalities for a capacitated survivable network design problem (p.355)*

Short Communications: Wednesday, 26 August, 16:15–17:00

	16:15–16:30	16:30–16:45	16:45–17:00
Sect.: **02**	Linear Algebra and Quadratic Forms, *Chair: Stefan Heiss*		
MA 311	**Herbert Möller** *New central algorithms in linear algebra (p.23)*	**Dilip N. Sheth** *Completion of a unimodular vector to an invertible matrix (p.28)*	**Ulf Rehmann** *Higher anisotropic kernels of quadratic forms (p.26)*
Sect.: **04**	Algebraic Cycles, *Chair: Yuri G. Prokhorov*		
MA 042	**Manfred F.G. Streit** *Field of Definition and Galois Orbits of some Non–Congruence Subgroups (p.61)*	**Serguei G. Tankeev** *Algebraic cycles of small codimension on simple $2p$- or $4p$-dimensional abelian variety (p.62)*	**Johannes Huisman** *Uniformization of real algebraic curves and complex analytic coordinates on Teichmüller spaces (p.54)*
Sect.: **05**	Analysis on Manifolds, *Chair: Marian Gidea*		
MA 041	**Yuri G. Borisovich** *Methods of global analysis in problems of solvability of nonlinear equations and inclusions (p.65)*	**Sylvie Paycha** *Regularization as a Geometric and Stochastic Tool in Infinite Dimensions (p.78)*	**Marian Gidea** *Non-Smooth Dynamical Systems that Exhibit Hyperbolic Behavior (p.69)*
Sect.: **05**	Polyhedra/Webs, *Chair: Hakki Ismail Erdogan*		
MA 043		**Anatoly D. Milka** *Linear isometric deformations of polyhedra (p.77)*	**Hakki Ismail Erdogan** *On a class of hexagonal-surface-web of spheres (p.68)*
Sect.: **09**	Complex Dynamical Systems, *Chair: John C. Mayer*		
H 111	**Toshiyuki Sugawa** *An explicit bound for uniform perfectness of Julia sets (p.193)*	**Hiroki Sumi** *Dynamics of rational semigroups and Hausdorff dimension of the Julia sets (p.193)*	**John C. Mayer** *Invariant subcontinua in Siegel and Cremer Julia sets of polynomials (p.183)*
Sect.: **09**	Impulsive Systems, *Chair: Anatoli Myshkis*		
H 110	**Dariusz Idczak** *Stability in semilinear problems (p.177)*	**Cristian Dascalu** *Antiplane Shear Instability in Elastodynamics with Slip Dependent Friction (p.174)*	**Anatoli Myshkis** *Autonomous impulsive-differential equations (p.184)*
Sect.: **11**	Field Theory III, *Chair: Henrik Petersson*		
H 107	**Robert Fittler** *Nonstandard Quantumelectrodynamics (p.233)*	**Takashi Kimura** *Cohomological Field Theories and Tautological Classes (p.236)*	**Henrik Petersson** *Properties of analytical maps on infinite dimensional locally convex spaces (p.242)*
Sect.: **13**	Combinatorial Constructions, *Chair: Mark Kayll*		
H 106	**Abdelkader Khelladi** *Some Results on the Fiber Product of Graphs (p.278)*	**Andrew J. Woldar** *General properties of algebraically defined graphs (p.287)*	**Mark Kayll** *Stochastic independence properties of hard-core distributions (p.278)*
Sect.: **15**	Wavelets IV (organized by Andreas Rathsfeld), *Chair: Andreas Rathsfeld*		
H 2033	**Jürgen Prestin** *Polynomial wavelets*	**Andreas Rathsfeld** *Piecewise linear wavelet collocation for boundary element methods (p.310)*	
Sect.: **19**	Miscellaneous, *Chair: Seemanapalli V. Sastry*		
H 2013	**Seemanapalli V. Sastry** *History of Mathematics: Yesterday, Today, and Tomorrow (p.368)*		

Short Communications: Wednesday, 26 August, 17:15–18:00

	17:15–17:30	17:30–17:45	17:45–18:00
Sect.: **02**	GROUPS IV, *Chair: Bettina Wilkens*		
MA 311	**Alexei N. Krasilnikov** *Identities in metanilpotent groups (p.21)*	**Ernest B. Vinberg** *On a generalization of Coxeter groups*	**Munibur Rahman Chowdhury** *A commutativity theorem for groups (p.15)*
Sect.: **05**	DIFFERENTIAL EQUATIONS ON MANIFOLDS, *Chair: Congming Li*		
MA 041	**Atsushi Tachikawa** *A Nonexistence Result of Harmonic Maps between Hadamard Manifolds (p.82)*	**Asya Vasilyevna Aminova** *The pseudo-Riemannian manifolds with common geodesics (p.64)*	**Congming Li** *Prescribing Scalar Curvature on S^n (p.74)*
Sect.: **09**	INVARIANT MANIFOLDS AND NORMAL FORMS, *Chair: Pei Yu*		
H 111	**Alexander Ya. Kopanskii** *Normal forms of vector fields satisfying certain geometric conditions (p.180)*	**Alexander M. Kovalev** *The equations of invariant and oriented manifolds of dynamical systems (p.180)*	**Pei Yu** *Simplest Normal Forms of Differential Equations (p.196)*
Sect.: **09**	BOUNDARY VALUE PROBLEMS, *Chair: Guiseppe Anichini*		
H 110	**Nusrat Rajabov** *Linear conjugate boundary value problems for the second order linear ordinary differential equation with super–singular coefficients (p.186)*	**Masashi Kisaka** *On the Connnected Components of Julia Sets of Transcendental Entire Functions (p.180)*	**Guiseppe Anichini** *Boundary value problems for implicit ODE's in a singular case (p.170)*
Sect.: **11**	THERMODYNAMICS, HYDRODYNAMICS, NON-LINEAR DYNAMICS IV, *Chair: Juan M. Alvaro Vilumbrales*		
H 107	**Sergei Fedotov** *Travelling Waves in a Reaction-Diffusion System with KPP-kinetics (p.233)*	**Alexander A Alexeyev** *Superposition principles for nonlinear partial differential equations in (1+1) dimension (p.227)*	**Juan M. Alvaro Vilumbrales** *Cylindrical and spherical problems of Stefan: analytical solutions and numerical estimates (p.228)*
Sect.: **13**	GEOMETRY IV, *Chair: Yuri Grigoriyevich Stoyan*		
H 106	**Alexei A. Tuzhilin** *Planar Local Minimal Networks with Convex Boundaries (p.286)*	**Alexandr O. Ivanov** *Linear Networks in Euclidean Spaces R^n (p.277)*	**Yuri Grigoriyevich Stoyan** *Properties of combinatorial set images into the arithmatic Euclidean spaces (p.285)*

Poster Session: Wednesday, 26 August, 14:00–15:45

Sect.: **08**	ANALYSIS		
MA 144	**Ants Aasma** *Summability with speed and comparison of orders of approximation of Fourier expansions by different matrix methods of summability (p.112)*	**El Hassan E.H. El Kinani** *q-Derivation, Sine algebra, and $Ut(sl(2))$ (p.123)*	**Stefan B.A. Jakobsson** *Applications of weighted Hele-Shaw flow and kernel function techniques to Green functions for weighted biharmonic operators (p.132)*
	Volodymyr M. Kolodyazhniy *Nonlinear Identification Problem Solution Using the Wavelets of the Atomic Functions (p.136)*	**Hrvoje Kraljevic** *Landau's type inequalities for contraction cosine functions (p.137)*	**Carlos Lizama** *A Characterization of Uniform Continuity for Volterra Equations in Hilbert Spaces (p.140)*
	Igor-Ya. Novikov *Time-frequency localization of modified Daubechies wavelets (p.144)*	**Alan L. Schwartz** *Hypergroups and their maximum subgroup (p.154)*	**Katsunori Shimomura** *On the transformations which preserve polytemperatures (p.156)*
	Feng-Yu Wang *Harnack inequality for heat semigroups and log-Sobolev inequalities (p.163)*	**Oxana A. Ziza** *On absolute summability of orthogonal series (p.167)*	
Sect.: **19**	HISTORY OF MATHEMATICS		
MA 144	**Carlos Gomez Bermudez** *Le système des nombres chez G. Cantor (p.366)*	**Harald Gropp** *Levi, Steinitz, Zacharias, and configurations –Three German mathematicians in the 20^{th} century and a combinatorial structure (p.366)*	**Aleksandar T. Lipkovski** *Rational curves with elliptic arcs — Serret's solution of Legendre's problem (p.368)*
	Man-Keung Siu *On the myth of an ancient Chinese theorem about primality (p.369)*		

Poster Session: Wednesday, 26 August, 16:15–18:00

Sect.: **17**	CONTROL THEORY AND OPTIMIZATION		
MA 144	**Shamsha A. Aipanov** *The solutions of some problems of optimal control of spacecraft (p.335)*	**Vladimir Borisov** *Bundles with chattering extremals (p.337)*	**Anna Debinska-Nagorska** *A Non-linear Hyperbolic Control Problem with Neumann Boundary Condition — Convergence of Galerkin Approximation (p.338)*
	Roland Hildebrand *Optimal synthesis of controlled systems near a focus (p.343)*	**Christian Schulz** *Optimal scheduling of a chemical batch plant (p.350)*	**Zdzislaw Stempien** *On the Optimal Control of Nonlinear Hyperbolic System — Approximation (p.351)*
	Pierre von Mouche *Sur deux problèmes géométriques dans la théorie des jeux (p.354)*	**Olga Winzer** *Complexity of vector spanning trees problems with topological criteria (p.355)*	**Stanislav T. Zavalishchin** *Dynamic impulse systems. Optimization problems in fluid mechanics (p.356)*