Tuesday, 25 August

Plenary Lectures

9:00 – 10:00 **Auditorium Maximum H 105**

George C. Papanicolaou, Stanford University, Stanford, USA
Mathematical Problems in Geophysical Wave Propagation *(I: p.17)*
Chair: John Ball, Oxford University, Oxford, UK

10:15 – 11:15 **Auditorium Maximum H 105**

Tetsuji Miwa, RIMS, Kyoto University, Kyoto, Japan
Algebraic Analysis of Solvable Lattice Models *(I: p.16)*
Chair: Yuri Manin, Max-Planck-Institut für Mathematik, Bonn, Germany

11:45 – 12:45 **Auditorium Maximum H 105**

Gilles Pisier, Université Paris 6, Paris, France and Texas A&M University, College Station, USA
Operator Spaces and Similarity Problems *(I: p.18)*
Chair: Joram Lindenstrauss, Hebrew University, Jerusalem, Israel

Invited Lectures

14:00 – 14:45

03 **Loïc Merel,** Université Paris 7 - Denis Diderot, Paris, France **MA 005**
Determination of rational points using Dirichlet series *(I: p.52)*
Chair: Wilhelm Zink

08 **Nicole Tomczak-Jaegermann,** University of Alberta, Edmonton, Canada **MA 001**
From finite- to infinite-dimensional phenomena in Geometric Functional Analysis, on local and asymptotic levels *(I: p.108)*
Chair: W. Timothy Gowers

12 **Alain-Sol Sznitman,** ETH Zürich, Zürich, Switzerland **H 1028**
Brownian motion and random obstacles *(I: p.149)*
Chair: Terry J. Lyons

15 **Percy Alec Deift,** Courant Institute, New York University, New York, USA **H 1012**
Uniform asymptotics for orthogonal polynomials *(I: p.179)*
Chair: Tom H. Koornwinder

16 **Andreas W.M. Dress,** Universität Bielefeld, Bielefeld, Germany **H 2032**
The Tree of Life and Other Affine Buildings *(I: p.186)*
Chair: Hanfried Lenz

18 **Mariolina Bartolini Bussi,** Università di Modena, Modena, Italy **H 104**
Drawing instruments: the theory of a practice from history to didactics *(I: p.197)*
Chair: Klaus-D. Graf

15:00 – 15:45

!!! **Lecture by a Fields Medalist** **MA 001**
— to be announced —
Chair: N.N.

03 **Shinichi Mochizuki,** RIMS, Kyoto University, Kyoto, Japan **MA 005**
The Intrinsic Hodge Theory of p-adic Hyperbolic Curves *(I: p.53)*
Chair: Helmut Koch

12 **Peter Gavin Hall,** Australian National University, Canberra, Australia **H 1028**
Applications of Intentionally Biased Bootstrap Methods *(I: p.144)*
Chair: Olaf Bunke

15 **Jan-Olov Strömberg,** Royal Institute of Technology, Stockholm, Sweden **H 1012**
Apriori estimates for approximation by wavelets in higher dimensions *(I: p.180)*
Chair: Peter Maaß

16 **Bonnie Berger,** Massachusetts Institute of Technology, Cambridge, USA **H 2032**
Sequence-based Methods for Protein Folding *(I: p.185)*
Chair: Michiel Hazewinkel

18 **James Stigler,** University of California, Los Angeles, USA **H 104**
Classroom Mathematics Instruction in Three Cultures: An Introduction to the TIMSS Video Study *(I: p.200)*
Chair: Thomas Jahnke

16:15 – 17:00

01 Matthew Foreman, University of California, Irvine, USA — **H 1012**
Generic Large Cardinals: New Axioms for Mathematics? *(I: p.30)*
Chair: Peter G. Koepke

02 Aner Shalev, The Hebrew University, Jerusalem, Israel — **MA 005**
Simple groups, permutation groups, and probability *(I: p.45)*
Chair: Bernhard H. Neumann

05 Boris Dubrovin, International School for Advanced Studies, Trieste, Italy and Steklov Math. Institute, Moscow, Russia — **MA 001**
Geometry and analytic theory of Frobenius manifolds *(I: p.69)*
Chair: Alexander I. Bobenko

11 Eugene Bogomolny, Université Paris Sud, Orsay, France — **H 1028**
Spectral Statistics *(I: p.129)*
Chair: Pierre Collet

13 Neil J.A. Sloane, AT&T Research Labs, Florham Park, USA — **H 2032**
Recent developments on the sphere-packing problem *(I: p.161)*
Chair: Martin Aigner

16:15 – 18:00

18 George Eyre Andrews, Pennsylvania State University, University Park, USA — **H 104**
D.J. Lewis (moderator), NSF, Arlington, USA
David Alexander Smith, Duke University, Durham, USA
Collegiate Mathematics Instruction for the 21st Century — A Panel Discussion *(I: p.200)*
Chair:

17:15 – 18:00

01 Ludomir Newelski, University of Wrocław, Wrocław and Polish Academy of Sciences, Poland — **H 1012**
Meager forking and m-independence *(I: p.33)*
Chair: Alex James Wilkie

02 Jeremy C. Rickard, University of Bristol, Bristol, England — **MA 005**
The abelian defect group conjecture *(I: p.45)*
Chair: Dieter Happel

11 Horng-Tzer Yau, Courant Institute, New York University, New York, USA — **H 1028**
Scaling Limit of Particle Systems, Incompressible Navier-Stokes Equation, and Boltzmann Equation *(I: p.138)*
Chair: Ruedi Seiler

13 Joseph Adolphe François Thas, University of Gent, Gent, Belgium — **H 2032**
Finite Geometries, Varieties and Codes *(I: p.161)*
Chair: Theo Grundhöfer

16 Rolf Rannacher, Universität Heidelberg, Heidelberg, Germany — **MA 001**
Mathematics in Numerical Flow Simulation *(I: p.192)*
Chair: Rolf Jeltsch

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** MA 042	SET THEORY AND RECURSION THEORY, *Chair: Robert Fittler*		
	Philip D. Welch *The Length of Infinite Time Turing Machine Computations (p.11)*	**Martin Zeman** *$\diamond$ at Mahlo Cardinals (p.11)*	**Marat-M. Arslanov** *The enumeration degree structures (p.5)*
Sect.: **02** MA 311	RINGS AND MODULES II, *Chair: Christine Bessenrodt*		
	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** MA 041	AFFINE DIFFERENTIAL GEOMETRY, *Chair: Salvador D.R. Gigena*		
	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** MA 043	GENERAL GEOMETRIC STRUCTURES ON MANIFOLDS, *Chair: Lutz Weimann*		
	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** H 112	2-MANIFOLDS AND RELATED QUESTIONS, *Chair: Carl-Friedrich Bödigheimer*		
	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** H 111	LARGE-TIME BEHAVIOR, *Chair: Martin Brokate*		
	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** H 110	TOPOLOGICAL DYNAMICS, *Chair: Fritz Boese*		
	Sergey Bezuglyi *Full groups of minimal homeomorphisms of Cantor sets (p.171)*	**Fritz Boese** *Unilluminable Rooms (p.171)*	
Sect.: **11** H 107	Q-DEFORMATION, QUANTIZATION, *Chair: Markus J. Pflaum*		
	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** H 1029	MATHEMATICAL METHODS IN PHYSICS I, *Chair: Mikhail Brodsky*		
	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** H 106	SUBGRAPHS, *Chair: Béla Bollobás*		
	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** H 2033	DISTRIBUTED PARAMETER SYSTEMS II, *Chair: Mikhail Zelikin*		
	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** H 2013	19TH CENTURY, *Chair: Herbert A. David*		
	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**	Arithmetic Functions, *Chair: Yasutoshi Nomura*		
MA 311	**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**	Surfaces/Higher-Dimensional Varieties II, *Chair: Vasile P. Brinzănescu*		
MA 042	**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**	Various Topics I, *Chair: Michael Forger*		
H 112	**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**	Hilbert Spaces, Wavelets, and Fractals, *Chair: Gerald S. Goodman*		
H 110	**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**	Real and Complex Approximation, *Chair: Mirela Kohr*		
MA 041	**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**	Spectral Analysis and Operator Algebras, *Chair: Sa Ge Lee*		
MA 309	**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**	Matrix and Operator Functions, *Chair: George N. Khimshiashvili*		
MA 043	**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**	Elliptic Equations V (Fourier and Harmonic Analysis), *Chair: Pawel Strzelecki*		
H 111	**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**	Brownian Motion I, *Chair: Jean-Pierre Imhof*		
H 107	**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**	Time Series Analysis, *Chair: Alexander Frolovich Taraskin*		
H 1029	**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**	Partial Differential Equations VI, *Chair: Ivanka P. Nikolova*		
H 2033	**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**	Applications in Mechanics, *Chair: Vadim D. Potapov*		
H 106	**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**	Game Theory, *Chair: Hans Josef Pesch*		
H 2013	**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**	ANALYTIC NUMBER THEORY II, *Chair: Jan-Christoph Puchta*		
MA 311	**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**	SURFACES/HIGHER-DIMENSIONAL VARIETIES III, *Chair: Fabrizio M.E. Catanese*		
MA 042	**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**	VARIOUS TOPICS II, *Chair: Alexander Baranov*		
H 112	**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**	ANALYTIC FUNCTIONS II, *Chair: Mohamed Abdel-Megied*		
H 110	**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**	NONLINEAR OPERATORS, *Chair: Richard M. Dudley*		
MA 041	**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**	CONVEXITY, BANACH SPACES, AND ISOMETRIES, *Chair: Themistocles M. Rassias*		
MA 309	**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**	SEQUENCE AND FUNCTION SPACES, *Chair: Jan H. Fourie*		
MA 043	**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**	PARABOLIC EQUATIONS, *Chair: Nicolay Draganov Kutev*		
H 111	**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**	BROWNIAN MOTION II, *Chair: Frank B. Knight*		
H 107	**Viet Ha Hoang** *Singularly perturbed Dirichlet problems in randomly perforated domains* (p.253)	**Vesna Perisic** *On some energy inequalities* (p.265)	
Sect.: **12**	STATISTICS FOR RANDOM FIELDS, *Chair: Alexander Frolovich Taraskin*		
H 1029	**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**	PARTIAL DIFFERENTIAL EQUATIONS VII, *Chair: Ursula van Rienen*		
H 2033	**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**	OPTIMALITY CONDITIONS II, *Chair: Henrikas Pragarauskas*		
H 2013	**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**	Partial Differential Equations		
MA 144	**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 operators 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**	Ordinary Differential Equations and Dynamical Systems		
MA 144	**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)*

Special Activities

19:30 – 21:00 **H 104**

International Comparison of Mathematical Studies, University Degrees, and Professional Perspectives

Round table, organized by Ina Kersten (Bielefeld, Germany), among the panelists are: D. Cioranescu, K.-H. Hoffmann, J. Netzel, A. Pelczar, M. Primicerio

Other Events

14:00 – 15:45 **MA 004**

Mathematics in the Third Reich and Racial and Political Persecution

A forum with lectures by Joel Lebowitz (Rutgers University, USA): "Victims, Oppressors, Activists, and Bystanders: Scientists' Response to Racial and Political Persecution" and by Herbert Mehrtens (Universität Braunschweig, Germany): "Mathematics and Mathematicians in Nazi Germany. History and Memory" and a discussion chaired by Jochen Brüning (HU Berlin, Germany).

16:00 **Urania**

Mathematics and Art
The best entries by high-school students will be honored, and some math videos will be shown.

17:30 **Urania**

Gero von Randow, Hamburg, Germany
Geisterfahrer des Journalismus — Wie kommt die Mathematik in die Zeitung? (in German)

18:00 **Urania**

Movie
Seeing is Believing / Hotel Hilbert

19:30 **Urania**

Walter Schachermayer, Wien, Austria
The Role of Mathematics in Financial Markets. The lecture is followed by a round-table discussion involving R. Dantschke, H. Föllmer (chair), A. Gruber, G. Stahl.

20:00 **Urania**

VideoMath Festival
The "VideoMath Reel", the 24 best contributions to the VideoMath competition, and the Award Ceremony