Saturday, 22 August

Plenary Lecture

9:30 – 10:30	**Auditorium Maximum H 105**
Wolfgang Hackbusch, Universität Kiel, Kiel, Germany *From Classical Numerical Mathematics to Scientific Computing* Chair: Willi Jäger, Universität Heidelberg, Heidelberg, Germany	*(I: p.6)*

Invited Lectures

14:00 – 14:45

03	**Vladimir Berkovich,** Weizmann Institute of Science, Rehovot, Israel *p-adic analytic spaces* Chair: Norbert Schappacher	*(I: p.48, electronic version)*	**MA 005**
07	**James Greig Arthur,** University of Toronto, Toronto, Canada *Towards a stable trace formula* Chair: Michael Rapoport	*(I: p.87)*	**MA 004**
08	**Kari Astala,** University of Jyväskylä, Jyväskylä, Finland *Analytic aspects of quasiconformality* Chair: Frederick W. Gehring	*(I: p.97)*	**MA 001**
09	**Yuri Kifer,** Hebrew University of Jerusalem, Jerusalem, Israel *Random Dynamics and its Applications* Chair: Ludwig Arnold	*(I: p.114)*	**H 1012**
13	**Béla Bollobás,** University of Memphis, Memphis, USA and University of Cambridge, Cambridge, UK *Hereditary properties of graphs: asymptotic enumeration, global structure, and colouring* Chair: Hans J. Prömel	*(I: p.153)*	**H 2032**
16	**Thomas Yizhao Hou,** California Institute of Technology, Pasadena, USA *Numerical Study of Free Interface Problems Using Boundary Integral Methods* Chair: Vladimir V. Shaidurov	*(I: p.189)*	**H 1028**

15:00 – 15:45

03	**Pierre Colmez,** CNRS, ENS, and Institut de Mathématiques de Jussieu, Paris, France *(φ,Γ)-modules and Iwasawa theory of p-adic representations* Chair: Christophe Soulé	*(I: p.49)*	**MA 005**
07	**Ivan V. Cherednik,** The University of North Carolina at Chapel Hill, Chapel Hill, USA *From double Hecke algebra to analysis* Chair: Olivier Mathieu	*(I: p.89)*	**MA 004**
08	**Detlef H. Müller,** Universität Kiel, Kiel, Germany *L^p-functional calculus on Lie groups and estimates for wave equations* Chair: N.N.	*(I: p.102)*	**MA 001**
09	**Curtis Tracy McMullen,** Harvard University, Cambridge, USA *Rigidity and inflexibility in conformal dynamics* Chair: Joerg Schmeling	*(I: p.119)*	**H 1012**
13	**Harald Niederreiter,** Austrian Academy of Sciences, Vienna, Austria *Nets, (t,s)-sequences, and algebraic curves over finite fields with many rational points* Chair: Dieter Jungnickel	*(I: p.159)*	**H 2032**

16 **Leslie Frederick Greengard,** Courant Institute, New York University, New York, USA **H 1028**
A new version of the fast Gauss transform *(I: p.189)*
Chair: Gregory Beylkin

16:15 – 17:00

02 **Eric Mark Friedlander,** Northwestern University, Evanston, USA **MA 005**
Geometry of Infinitesimal Group Schemes *(I: p.36)*
Chair: Uwe Jannsen

04 & 11 **Paul S. Aspinwall,** Duke University, Durham, USA **H 1028**
Geometry and String Duality *(I: p.59)*
Chair: Pelham M.H. Wilson

05 **Dominic Joyce,** Lincoln College, Oxford, UK **MA 001**
Compact Riemannian manifolds with exceptional holonomy *(I: p.73)*
Chair: Boris Dubrovin

06 **William Gerard Dwyer,** University of Notre Dame, Notre Dame, USA **MA 004**
Lie groups and p-compact groups *(I: p.79)*
Chair: Albrecht Dold

10 **Gunther A. Uhlmann,** University of Washington, Seattle, USA **H 1012**
Inverse Boundary Value Problems for Partial Differential Equations *(I: p.127)*
Chair: Bert-Wolfgang Schulze

17 **William R. Pulleyblank,** IBM T.J. Watson Research Center, Yorktown Heights, USA **H 2032**
Advances in Solving Airline Crew Pairing Optimization Problems *(I: p.194)*
Chair: Rolf H. Möhring

17:15 – 18:00

!!! **Lecture by a Fields Medalist** **H 2032**
– to be announced –
Chair: N.N.

02 **Gunter Malle,** Universität Heidelberg, Heidelberg, Germany **MA 005**
Spetses *(I: p.41)*
Chair: John S. Wilson

05 **Sylvestre Gallot,** U.M.P.A., École Normale Supérieure de Lyon, Lyon, France **MA 001**
Curvature-decreasing maps are volume-decreasing *(I: p.71)*
Chair: Boris Dubrovin

06 **Mark Mahowald,** Northwestern University, Evanston, USA **MA 004**
Toward a global understanding of $\pi_*(S^n)$ *(I: p.81)*
Chair: Albrecht Dold

10 **Mikhail Vasilevich Safonov,** University of Minnesota, Minneapolis, USA **H 1012**
Estimates near the boundary for solutions of second order parabolic equations *(I: p.126)*
Chair: Heinz O. Cordes

11 **Pierre Collet,** CNRS, École Polytechnique, Palaiseau, France **H 1028**
Extended Dynamical Systems *(I: p.130)*
Chair: Roberto Schonmann

Short Communications and Poster Sessions

Short Communications: Saturday, 22 August, 14:00–14:45			
	14:00–14:15	**14:15–14:30**	**14:30–14:45**
Sect.: **02**	REPRESENTATIONS OF GROUPS, *Chair: Alexander S. Kleshchev*		
MA 311	**Mohammad Reza Darafsheh** *The character table of the group $GL_2(q)$ when extended by a certain group of order two (p.15)*	**Anna Helversen-Pasotto** *Représentations de $GL(n, F_q)$ et sommes de Gauss (p.18)*	**Alexei Davydov** *Drinfel'd theory and representations of finite groups (p.16)*
Sect.: **04**	AFFINE ALGEBRAIC GEOMETRY, *Chair: Marko Roczen*		
MA 042	**Tatsuji Kambayashi** *A Nullstellensatz for Pro-Affine Algebras (p.55)*	**Vladimir Shpilrain** *Embeddings of curves in the plane (p.60)*	**Jie-Tai Yu** *Polynomial Retracts and the Jacobian Conjecture (p.63)*
Sect.: **05**	SURFACE THEORY, *Chair: John M. Sullivan*		
MA 041	**Udo J. Hertrich-Jeromin** *Transformations of Isothermic surfaces (p.71)*	**Bernd Ammann** *New estimates for the Laplace and Dirac spectrum of 2-Tori and applications to the Willmore functional (p.64)*	**John M. Sullivan** *Triunduloids: Embedded Constant-Mean-Curvature Surfaces with Three Ends (p.81)*
Sect.: **06**	ALGEBRAIC TOPOLOGY I, *Chair: Jean-Michel Lemaire*		
H 112	**Igor Kriz** *Real-oriented homotopy theory (p.91)*	**Carlos Prieto** *Quasifibrations and Bott periodicity (p.95)*	**Alexander S. Mishchenko** *Local combinatorial Hirzebruch formula (p.94)*
Sect.: **10**	ELLIPTIC EQUATIONS III (SPECTRAL THEORY), *Chair: Tetsutaro T. Shibata*		
H 111	**Gabriella Bognár** *On a nonlinear eigenvalue problem (p.198)*	**Jochen Denzler** *Existence of windows with minimal heat diffusion (p.201)*	**Tetsutaro T. Shibata** *Asymptotic behavior of eigenvalues of nonlinear elliptic two-parameter problems (p.221)*
Sect.: **10**	SYSTEMS II, *Chair: Joachim Naumann*		
H 110	**Hakop A. Hakopian** *On two partial differential and one algebraic systems (p.205)*	**Waichiro Matsumoto** *On the Cauchy-Kowalevskaya theorem of Nagumo type for systems (p.213)*	**Joachim Naumann** *Interior Hölder continuity of weak solutions to nonlinear parabolic systems in two spatial dimensions (p.215)*
Sect.: **11**	FIELD THEORY I, *Chair: Pierre Mathieu*		
H 107	**Robert W. Carroll** *On Whitham dynamics and renormalization (p.230)*	**Andrei G. Bytsko** *On factorized Virasoro characters (p.230)*	**Andreas Fring** *Lie Algebraic Structures from Factorized Virasoro Characters (p.233)*
Sect.: **11**	DISCRETE EIGENVALUE THEORY, *Chair: Miodrag Perovic*		
H 1029	**Miodrag Perovic** *Some Comments Concerning the Application of the Discrete Eigenvalue Theory*		
Sect.: **14**	MATHEMATICAL ASPECTS OF COMPUTER SCIENCE V, *Chair: Hartmut Ehrig*		
MA 043	**Bernd Gärtner** *Abstract Objective Functions — From Geometry to Combinatorics in Linear Programming (p.291)*	**Andreas Brieden** *Optimal Radii-Algorithms (p.289)*	**Anuar Dusembaev** *An operator approach to program segmentation (p.290)*
Sect.: **15**	PARTIAL DIFFERENTIAL EQUATIONS IV, *Chair: Jennifer J. Zhao*		
H 2033	**Jennifer J. Zhao** *Finite-difference approximations to a parabolic system modeling the thermoelastic contacts of two rods (p.319)*	**Jianping Zhu** *A High Order Algorithm for Solving Reaction Diffusion Equations (p.319)*	**Raul Kangro** *Analysis of Artificial Boundary Conditions for Black-Scholes Equations (p.304)*
Sect.: **17**	OPTIMIZATION IN FUNCTION SPACES, *Chair: Valeri V. Obukhovskii*		
H 2013	**Andres, M. Encinas** *Existence and Approximation of Gauss Variational Problem in Potential Theory (p.340)*	**Stanisław Migórski** *Optimal control of hemivariational inequalities (p.345)*	**Valeri V. Obukhovskii** *On some methods in a periodic problem for a functional differential inclusion in a Banach space (p.346)*

Short Communications: Saturday, 22 August, 15:00–15:45

	15:00–15:15	15:15–15:30	15:30–15:45
Sect.: **02** MA 311	COMMUTATIVE RINGS, *Chair: Peter Draexler*		
	Alexander Levin *Multivariable dimension polynomials and their invariants (p.21)*	**Venkat Murali** *On Krull Intersection Theorem of Fuzzy Ideals (p.24)*	**Cornelia G. Naude** *Asymptotic behaviour of attached primes (p.25)*
Sect.: **04** MA 042	RIEMANN SURFACES/LINEAR SYSTEMS, *Chair: Anette A'Campo-Neuen*		
	Sergei Natanzon *Topological structure of spaces of holomorphic morphisms (p.58)*	**Masahiro Ohno** *On nef values of determinants of ample vector bundles (p.59)*	**Siye Wu** *On the instanton complex of holomorphic Morse theory (p.62)*
Sect.: **05** MA 041	CURVES, *Chair: Joachim Giesen*		
		Kazuyuki Enomoto *Total absolute curvature of nonclosed curves (p.67)*	**Joachim Giesen** *Geometry of One-Manifolds (p.69)*
Sect.: **06** H 112	ALGEBRAIC TOPOLOGY II, *Chair: Daniel H. Gottlieb*		
	Carles Casacuberta *A universal space for plus-constructions (p.86)*	**Samson Saneblidze** *Adams Cobar Construction as a Cubical Complex (p.97)*	**Hirotaka Tamanoi** *BP cohomology theory and v_n-series (p.98)*
Sect.: **10** H 111	HYPERBOLIC EQUATIONS II (SHOCKS, BLOW-UP, AND OTHER SINGULAR PHENOMENA), *Chair: Ya-Guang Wang*		
	Mehmet Can *Blow up of solutions of a quasilinear hyperbolic equation with applications (p.199)*	**Michael Ruzicka** *Electrorheological fluids, an example for systems with non-standard growth (p.219)*	**Ya-Guang Wang** *Nonlinear Geometrical Optics for Shock Waves (p.224)*
Sect.: **10** H 110	DIFFUSION PROCESSES, *Chair: Natalia I. Grinberg*		
	Jack Carr *Asymptotic Behaviour of Solutions to a simplified Lifshitz-Slyozov Equation (p.200)*	**Alexander M. Chebotarev** *Resolvent theory for quantum dynamical semigroup (p.200)*	**Natalia I. Grinberg** *Inverse boundary problem for 2D diffusion equation (p.205)*
Sect.: **11** H 107	FIELD THEORY II, *Chair: Robert W. Carroll*		
	Pierre Mathieu *Generating functions for fusion rules (p.240)*	**Moukadas Missarov** *Critical phenomena and continuum limit in the hierarchical fermionic model (p.240)*	**Michael Monastyrsky** *Correlation functions on Riemann surfaces and statistics of Knots (p.241)*
Sect.: **14** MA 043	MATHEMATICAL ASPECTS OF COMPUTER SCIENCE VI, *Chair: Andreas Brieden*		
	Hartmut Ehrig *On the Role of Category Theory in Computer Science (p.290)*	**Raja Natarajan** *Combinators for Concurrency (p.294)*	**George Francis** *The Making of the Optiverse (p.291)*
Sect.: **15** H 2033	PARTIAL DIFFERENTIAL EQUATIONS V, *Chair: Cesar Palencia*		
	Cesareo González *The implicit Euler method for abstract time-dependent parabolic problems with variable domains (p.301)*	**Raimondas Ciegis** *Odd-even difference schemes for the Schrödinger problem (p.298)*	**Daisuke Furihata** *Finite difference schemes that inherit the energy conservation or dissipation property from partial differential equations (p.300)*
Sect.: **17** H 2013	STOCHASTIC CONTROL/CONTROLLABILITY, *Chair: Galina A. Timofeeva*		
	Yuri L. Sachkov *Controllability of right-invariant systems on solvable Lie groups (p.349)*	**Leonid E. Shaikhet** *Stability of stochastic difference equations with varying delays (p.350)*	**Galina A. Timofeeva** *Effective control and observation in the multistage stochastic optimization problem (p.352)*

Short Communications: Saturday, 22 August, 16:15–17:00

	16:15–16:30	16:30–16:45	16:45–17:00
Sect.: **03**	INTEGRAL MATRICES, *Chair: Jean-Louis Nicolas*		
MA 311	**Shashikant Katre** *Matrices over orders in algebraic number fields as sums of k-th powers (p.39)*	**Dmitri Malinin** *Integral representations of finite groups (p.42)*	**Jean-Louis Nicolas** *On the maximum order of torsion elements in $GL(n, \mathbb{Z})$ (p.43)*
Sect.: **03**	ALGEBRAIC GEOMETRY II, *Chair: Jörg Wildeshaus*		
MA 042	**Jörg Wildeshaus** *Degeneration of Shimura Polylogarithms*		
Sect.: **07**	TOPOLOGICAL GROUPS, *Chair: Wolfgang Reinhold Bergmann*		
H 112	**Boris S. Khots** *Fifth Hilbert problem and infinite-dimensional P-groups (p.106)*	**Grigori Lazarevich Litvinov** *Group algebras and nonunitary representations of smooth groups (p.107)*	**Julio Cesar Rebelo** *Associating vector fields to certain subgroups of $\mathrm{Diff}^{\,w}(S^1)$: applications to ergodicity and rigidity (p.109)*
Sect.: **08**	UNIVALENT FUNCTIONS II, *Chair: Arne Stray*		
H 110	**Peter Duren** *Hyperbolic Capacity and its Distortion under Conformal Mapping (p.122)*	**Ilgiz G. Kayumov** *Asymptotical behaviour of logarithmic coefficients of univalent functions (p.134)*	**Dmitri V. Prokhorov** *Estimates of linear functionals for bounded univalent functions (p.149)*
Sect.: **08**	INEQUALITIES AND INTERPOLATION, *Chair: Vladimir I. Ovchinnikov*		
MA 041	**Vladislav F. Babenko** *Inequalities of Landau–Kolmogorov–Nagy Type (p.115)*	**Vladimir Alexandrovich Kofanov** *Exact Inequalities of Kolmogorov Type for Periodic Functions of Small Smoothness (p.135)*	**Vladimir I. Ovchinnikov** *Nonclassical Interpolation Theorems in Spaces of Smooth Functions (p.146)*
Sect.: **08**	MEASURE AND INTEGRATION, *Chair: Carmen D. Vlad*		
MA 309	**Alexandre V. Mikhalev** *Solution of Riesz-Radon problem (p.141)*	**Valeriy Konstantinovich Zakharov** *A solution of the general Riesz-Radon problem for a Hausdorff space (p.166)*	**Carmen D. Vlad** *Outer measures and countably additivity of measures (p.162)*
Sect.: **08**	BANACH ALGEBRAS AND FREDHOLM MAPS, *Chair: Kari E. Ylinen*		
MA 043	**Victor G. Zvyagin** *Topological methods in the theory of perturbations of Fredholm maps and applications (p.167)*	**Hans-Olav I. Tylli** *Rigidity of commutators and elementary operators on Calkin algebras (p.161)*	**Kari E. Ylinen** *Positive definite operator functions on groups and related multilinear operators on products of Banach-*-algebras (p.165)*
Sect.: **09**	RANDOM DYNAMICAL SYSTEMS, *Chair: Govindan Rangarajan*		
H 111	**Lev Ryashko** *Quasipotential in stochastic stability analysis of limit cycles (p.188)*	**Henri U. Schurz** *Contractivity and Stability Exponents of Nonlinear Stochastic Dynamical Systems (p.191)*	**Govindan Rangarajan** *A New Method for Computing Lyapunov Exponents (p.186)*
Sect.: **12**	SELF SIMILARITY, WHITE NOISE, *Chair: Murad S. Taqqu*		
H 107	**Iosif Kolumban** *Invariant sets in Menger spaces (p.257)*	**Louis F. Rossi** *Self-similar viscous rotating vortical structures (p.268)*	**Yuh-Jia Lee** *Generalized White Noise Functionals on Classical Wiener Space (p.258)*
Sect.: **12**	TESTS AND CONFIDENCE SETS, *Chair: Ekkehard Glimm*		
H 1029	**Alejandra Cabana** *Goodness-of-Fit Tests Based on Transformed Empirical Processes (p.249)*	**Roman Rozanski** *Asymptotically consistent and efficient fixed-size sequential confidence sets (p.269)*	**Ekkehard Glimm** *Power and admissibility of spherical multivariate tests (p.251)*
Sect.: **13**	GEOMETRY III, *Chair: Klaus Altmann*		
H 106	**Jennifer Mc Nulty** *Connected Hyperplanes in Binary Matroids (p.282)*	**Andreas W.M. Dress** *Highly Regular Spatial Structures: Theory, Software, and Visualization (p.276)*	**Klaus Altmann** *Hodge numbers for polytopes (p.274)*
Sect.: **18**	UNDERGRADUATE MATHEMATICS AT THE UNIVERSITY, *Chair: Joseph W. Eyles*		
H 2013	**Talma O. Leviatan** *Misconceptions, fallacies, pitfalls, and paradoxes in the teaching of probability (p.361)*	**Lyudmila Y. Khilchenko** *An algorithmic approach to the notion of an elementary function (p.360)*	**Joseph W. Eyles** *Discovering R.L. Moore's Calculus Course (p.358)*

Short Communications: Saturday, 22 August, 17:15–18:00

	17:15–17:30	17:30–17:45	17:45–18:00
Sect.: **03**	Analytic Number Theory I, *Chair: Jin Nakagawa*		
MA 311	**Antanas Laurincikas** *Value-distribution theorems on Lerch zeta-functions* (p.40)	**Roberto J. Miatello** *Estimates for Kloosterman sums for totally real number fields* (p.42)	**Jin Nakagawa** *Ohno conjecture on the zeta functions associated with the space of binary cubic forms* (p.43)
Sect.: **04**	Curves and Surfaces/Higher-Dimensional Varieties I, *Chair: Rolf-Peter Holzapfel*		
MA 042	**Viktor S. Kulikov** *On Chisini's Conjecture* (p.55)	**Kazuhisa Maehara** *Deformation of function fields* (p.56)	**Dan Avritzer** *The Hilbert scheme component of the intersection of two quadrics* (p.50)
Sect.: **07**	Amenable Groups, *Chair: Grigori L. Litvinov*		
H 112	**Wolfgang Reinhold Bergmann** *Amenable Groups and Generalized Cuntz Algebras* (p.102)	**Alexander I. Shtern [Chtern]** *Quasi-Symmetry and Amenability* (p.110)	
Sect.: **08**	Hilbert and Krein Spaces, *Chair: Vladimir Strauss*		
H 110	**Elias Flytzanis** *An invariance property of quadratic forms* (p.123)	**Michael Gebel** *Spectral Theory of Adjointable Operators in Spaces with two Metrics* (p.125)	**Vladimir Strauss** *On a model representation for a normal operator in Krein space* (p.158)
Sect.: **08**	Multivalued Mappings, Weighted Inequalities, and Means, *Chair: Lars-Erik Persson*		
MA 041	**B.K. Sharma** *A Strong Convergence Theorem for Multi-valued Nonexpansive Mappings* (p.155)	**Zheng Liu** *Inequalities for Some Means* (p.139)	**Lars-Erik Persson** *Sharp multidimensional multiplicative inequalities for weighted Lebegue spaces* (p.147)
Sect.: **08**	Dunkl Operators and Hyperfunctions, *Chair: Dohan Kim*		
MA 309	**Margit Rösler** *Positivity of Dunkl's intertwining operator* (p.152)	**Stevan Pilipović** *Suppleness of Some Quotient Spaces of Microfunctions* (p.147)	**Dohan Kim** *Moment problem for hyperfunctions and the heat kernel method* (p.134)
Sect.: **08**	Measure Problems, *Chair: Jiří Jarník*		
MA 043	**Raymond J. Grinnell** *Two real functions associated with convolutions of measures* (p.127)	**Daniar H. Mushtari** *Orthomodular posets of projections on linear spaces and signed measures on them* (p.143)	**Jiří Jarník** *Convergence theorem for Henstock–Kurzweil integral based on the convergence of primitives* (p.132)
Sect.: **09**	Complex Differential Equations, *Chair: Bruno Scardua*		
H 111	**Ljudmila A. Bordag** *Projective differential geometrical structure of the Painlevé equations* (p.172)	**Alexei A. Glutsuk** *Stokes phenomena via generic perturbation* (p.176)	**Bruno Scardua** *Integration of Complex Differential Equations* (p.190)
Sect.: **12**	Teaching in Probability, *Chair: Murad S. Taqqu*		
H 107	**Natalya V. Vinogradova** *Classical Definition of Probability* (p.271)	**Yuliya Stepanovna Mishura** *Generalized stochastic integrals with application to fractional Brownian motion*	
Sect.: **13**	Codes and Cryptography, *Chair: A. Donald Keedwell*		
H 106	**Gerhard R. Paseman** *A different approach to Hadamard's maximum determinant problem* (p.283)	**Gholamrega B. Khosronshahi** *On trades and their codes* (p.279)	**A. Donald Keedwell** *Crossed-inverse quasigroups and their use in cryptography* (p.278)
Sect.: **17**	Nonlinear Optimization II, *Chair: Leon A. Petrosjan*		
H 2033	**Alexei V. Blinov** *The combined methods of centers with using reduced gradient for solving nonlinear optimization problems* (p.337)	**R. Enkhbat** *Global Optimality Conditions for some class of Nonconvex Optimization Problems* (p.340)	**Leon A. Petrosjan** *Time-consistancy problem in differential games* (p.348)
Sect.: **18**	Geometry in the Classroom, *Chair: F. Rudolf Fritsch*		
H 2013	**Klaus-D. Graf** *Distance learning fördert die Kreativität im Mathematikunterricht* (p.360)	**Bernd Zimmermann** *Al Sijzi on problemsolving and creativity in elementary geometry* (p.364)	**F. Rudolf Fritsch** *Remarks on quadrangles* (p.359)

Poster Session: Saturday, 22 August, 14:00–15:45

Sect.: **12**	PROBABILITY AND STATISTICS		
MA 144	**Jaap Geluk** *Second order regular variation and the domain of attraction* (p.251)	**Werner S. Hurlimann** *Comparison between extremal distributions: a conjecture and a partial proof* (p.253)	**Takeshi Ishikawa** *On modified maximum likelihood estimation for Rayleigh distribution* (p.254)
	Dionis Lica χ^2*-Test for Markov Chains* (p.258)	**Alfred Liemant** *Hopping transport of charge carriers on a disordered lattice* (p.259)	**Elina M. Moldavskaya** *Minimum Contrast Estimators of Parameter of Spectral Density of Random Fields in Continuous Case* (p.261)
	Hans-Joachim Mucha *Classification based on adaptive distances* (p.262)	**Marcus L.G. Nilsson** *Finite Probability Sequences of Large Entropy* (p.264)	**Jörg Polzehl** *Adaptive Image Denoising with Applications to MRI* (p.266)
	Tiberiu V. Postelnicu *Specific Statistical Method for Binary Data* (p.266)	**Grzegorz A. Rempala** *Random permanents of increasing degree* (p.267)	**Mikhailo Yadrenko** *Extrapolation and filtering problems for isotropic random fields* (p.273)
Sect.: **18**	TEACHING AND POPULARIZATION OF MATHEMATICS		
MA 144	**Gloria L.M. Alves** *Modernization of Basic Disciplines in Engineering Courses at IME* (p.357)	**Gerhard Brecht** *Do Mathematical Standards Concern Mathematics?* (p.357)	**Cecilia Crespo Crespo** *Thinking about Geometry Teaching* (p.358)
	Paul Fjelstad *A Picture for Real Arithmetic* (p.359)	**Peter Kortesi** *Junior Mathematical Congress — Challenge for Future Mathematicians* (p.360)	**Elena Vladimirovna Kuragina** *Methodical support for a programming-methodical complex of study methods of optimization* (p.361)
	Julia M. Moshnikova *Correspondence School of Mathematics in Karelia* (p.362)	**Yasuhiro Ozaki** *An Approach in Teaching by Means of the Personal Computer Software "Mathematica"* (p.363)	

Poster Session: Saturday, 22 August, 16:15–18:00

Sect.: **14**	MATHEMATICAL ASPECTS OF COMPUTER SCIENCE		
MA 144	**Giovanni Francesco Mascari** *From TQFT to TQCT* (p.293)	**Roman Matuszewski** *Journal of Formalized Mathematics — a collection of mechanically checked articles* (p.293)	
Sect.: **15**	NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING		
MA 144	**Mansour Abdullah Al-Zanaidi** *A Class of Generalized Trapezoidal Formulas for the Integration of y'=f(x, y)* (p.296)	**Mehmet Bozer** *The composite grids method of increased accuracy in solving the mixed boundary value problem for the Laplace equation* (p.297)	**Chin-Yun Chen** *VANI: A package for Validated, Adaptive Numerical Integration in one and more dimensions* (p.297)
	Adigezal Dosiyev *A block-grid method for solving Laplace's boundary value problem with singularities* (p.298)	**Bratislav Iricanin** *On the modification of Euler-Maclaurin summation formula connected with the Chebyshev quadrature formulae* (p.302)	**Anna Kamont** *Ditzian — Totik moduli of smoothness, spline systems and generalized Hölder spaces* (p.303)
	Ivan G. Kazantsev *Tomographic reconstruction from arbitrary directions* (p.304)	**Ingemar Kinnmark** *Overdetermined Differential Equation Problems* (p.304)	**Peeter Oja** *Adaptive by monotonicity interpolating splines* (p.307)
	Arvet Pedas *Collocation method for weakly singular integral equations* (p.309)	**Gerd Reinhardt** *Schnelle Algorithmen zum Clustern großer Datenmengen* (p.311)	**Mayumi Shoji** *Bifurcation structure of steady, deep-water gravity waves with constant vorticity* (p.313)
	Svetlana N. Sytova *Mathematical Modelling of X-ray Dynamical Diffraction by Non-Stationary Deformed Crystals* (p.315)	**Zoltan Istvan Szabo** *Root-finding Inclusion Algorithms Based on Tangential Lines and Parabolas* (p.315)	**Svetlana B. Zaitseva** *On sharp error estimates in* L_2*-norm for methods of solving the heat equation in non-smooth data classes* (p.318)
	Aihui Zhou *Multiparameter error resolution for finite elements* (p.319)		

Special Activities

11:00 – 12:00 **Auditorium Maximum H 105**

Emmy Noether Lecture:
Cathleen Synge Morawetz, Courant Institute, New York University, New York, USA
Variations on Conservation Laws for the Wave Equation
Chair: Irene M. Gamba, Austin, Texas, USA

14:00 – 18:00 **H 104**

Berlin as a Centre of Mathematical Activity
A workshop organized by G. Israel (Rome, Italy) and E. Knobloch (Berlin, Germany)

14:00 – 14:15 **G. Israel,** University of Rome, Italy
Introduction

14:15 – 14:45 **David Rowe,** Universität Mainz, Germany
The Berlin-Göttingen Rivalry, 1870-1920

14:45 – 15:00 **Discussion**

15:00 – 15:30 **Ivor Grattan-Guinness,** Middlesex University, England
Weierstrassian analysis and Cantorian set theory in Britain and the USA, 1890-1910

15:30 – 15:45 **Discussion**

15:45 – 16:15 **Coffee break**

16:15 – 16:45 **U. Bottazzini,** Centro Linceo Interdisciplinare "B. Segre" Accademia dei Lincei, Rome, Italy
Weierstrass' school of analysis and its influence on Italian mathematics

16:45 – 16:50 **Discussion**

16:50 – 17:20 **S. Demidov,** Russian Academy of Sciences, Moscow, Russia
Russian mathematicians in Berlin in the second half of the XIXth until the beginning of the XXth century

17:20 – 17:25 **Discussion**

17:25 – 17:55 **A. Dahan,** CNRS Paris, France
Images croisées des centres mathématiques de Paris et de Berlin, dans les années 1860/80

17:55 – 18:00 **Discussion**

Other Events

18:00 **Urania**

Movie
Errors aren't Forever / Law of Least Effort / The new Shepherd's Lamp

19:30 **Urania**

Jacobus van Lint, Eindhoven, Netherlands
The Mathematics of the CD–Player

20:00 **Urania**

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