Section 08: Analysis

Invited Lectures

Wednesday, 19 August — MA 001

16:15 – 17:00 **Michael T. Lacey,** Georgia Institute of Technology, Atlanta, USA
On the Bilinear Hilbert Transform *(I: p.99)*
Chair: Elias M. Stein

17:15 – 18:00 **Kristian Seip,** Norwegian University of Science and Technology, Trondheim, Norway
Developments from Nonharmonic Fourier Series *(I: p.105)*
Chair: Klaus D. Bierstedt

Thursday, 20 August — MA 001

14:00 – 14:45 **Sergey Ivanovich Pinchuk,** Indiana University, Bloomington, USA and Chelyabinsk State Univ. of Technology, Chelyabinsk, Russia
Reflection Principle in Higher Dimensions *(I: p.104)*
Chair: Jürgen Leiterer

15:00 – 15:45 **Nigel David Higson,** Pennsylvania State University, University Park, USA
The Baum-Connes Conjecture *(I: p.98)*
Chair: Joachim Cuntz

Friday, 21 August — MA 001

16:15 – 17:00 **Michael Christ,** University of California, Berkeley, USA
Singularity and Regularity — Local and Global *(I: p.97)*
Chair: Daryl Geller

17:15 – 18:00 **Hart F. Smith,** University of Washington, Seattle, USA
Wave Equations with Low Regularity Coefficients *(I: p.107)*
Chair: Gerald B. Folland

Saturday, 22 August — MA 001

14:00 – 14:45 **Kari Astala,** University of Jyväskylä, Jyväskylä, Finland
Analytic aspects of quasiconformality *(I: p.97)*
Chair: Frederick W. Gehring

15:00 – 15:45 **Detlef H. Müller,** Universität Kiel, Kiel, Germany
L^p-functional calculus on Lie groups and estimates for wave equations *(I: p.102)*
Chair: N.N.

Monday, 24 August — MA 001

16:15 – 17:00 **Stephen Wainger,** University of Wisconsin, Madison, USA
Discrete Analogues of Singular and Maximal Radon Transforms *(I: p.109)*
Chair: Detlef H. Müller

17:15 – 18:00 **Vitali Milman,** Tel Aviv University, Tel Aviv, Israel
Randomness and Pattern in Convex Geometric Analysis *(I: p.101)*
Chair: Hermann König

Tuesday, 25 August **MA 001**

14:00 – 14:45 **Nicole Tomczak-Jaegermann,** University of Alberta, Edmonton, Canada
From finite- to infinite-dimensional phenomena in Geometric Functional Analysis, on local and asymptotic levels *(I: p.108)*
Chair: W. Timothy Gowers

Wednesday, 26 August **MA 001**

16:15 – 17:00 **Pertti Mattila,** University of Jyväskylä, Jyväskylä, Finland
Rectifiability, analytic capacity, and singular integrals *(I: p.100)*
Chair: Srishti (S.D.) Chatterji

17:15 – 18:00 **Stefan Müller,** Max-Planck-Inst. für Math. in den Naturwissenschaften, Leipzig, Germany
Unexpected solutions of first and second order partial differential equations *(I: p.104)*
Chair: John M. Ball

Short Communications and Poster Sessions

Short Communications **Wednesday, 19 August**

Function Spaces and Operators **MA 041**
Chair: Jose Bonet

14:00 – 14:15 **Silke Holtmanns,** Universität-Gesamthochschule, Paderborn, Germany
An operator representation for weighted spaces of vector valued holomorphic functions *(p.130)*
14:15 – 14:30 **Klaus D. Bierstedt,** Universität-Gesamthochschule, Paderborn, Germany
An operator representation for weighted inductive limits of spaces of vector valued holomorphic functions *(p.117)*
14:30 – 14:45 **Jose Bonet,** Universidad Politécnica de Valencia, Valencia, Spain
Hypercyclic operators on non-normable Fréchet spaces *(p.118)*

Iteration, Composition, Clifford Structure **MA 309**
Chair: Mario Bonk

14:00 – 14:15 **Chung-Cun Yang,** The Hong Kong University of Sci. & Tech., Hong Kong, China, P.R. of
Some recent results on factorization of meromorphic functions *(p.165)*
14:15 – 14:30 **Eugen J. Ionascu,** Dept. of Math., University of Georgia, Athens, GA, USA
Wandering sets for a class of Borel isomorphisms of $[0,1)$ *(joint work with Dr. Edward Azoff, UGA, Athens, USA)* *(p.131)*
14:30 – 14:45 **Enrique Ramirez-De-Arellano,** Dept. of Mathematics — Cinvestav, Mexico City, Mexico
Almost-Clifford structures on manifolds *(p.150)*

Fractional Differentiation **MA 043**
Chair: A. Eduardo Gatto

14:00 – 14:15 **Evelyn Buckwar,** FB Mathematik und Informatik, FU, Berlin, Germany
Application of the Lie group of scaling transformations to the fractional diffusion-wave equation *(p.119)*
14:15 – 14:30 **Yuri Luchko,** Dept. of Mathematics and Computer Science, Freie Universität, Berlin, Germany
Lie group analysis of a partial differential equation of fractional order *(p.140)*
14:30 – 14:45 **A. Eduardo Gatto,** Depaul University, Chicago, USA
Fractional Calculus, Sobolev Spaces, and Related Rules on Spaces of Homogeneous Type *(p.124)*

C*-Algebras and Modules Chair: Alexander Ya. Helemskii		**MA 041**
15:00 – 15:15	**Michael J. Gruber,** Humboldt–Universität, Berlin, Germany *Non-commutative Bloch theory*	*(p.128)*
15:15 – 15:30	**Evgenij V. Troitsky,** Moscow State University, Moscow, Russia *Kuiper and Dixmier-Douady theorems for C^*-Hilbert modules and K-theory*	*(p.160)*
15:30 – 15:45	**Alexander Ya. Helemskii,** Moscow State University, Moscow, Russia *Description of projective Hilbert modules over C^*-algebras*	*(p.129)*

Spaces of Analytic Functions Chair: Peter Duren		**MA 309**
15:00 – 15:15	**Mitsuo Morimoto,** International Christian University, Mitaka-City, Japan *Reproducing kernels related to the complex sphere*	*(p.142)*
15:15 – 15:30	**Romeo Meštrović,** Univerzitet Crne Gore, Kotor, Yugoslavia *Topologies on Some F-algebras of Holomorphic Functions*	*(p.141)*
15:30 – 15:45	**William E. Hornor,** University of Southern Mississippi, Hattiesburg, Mississippi, USA *Properties of isometry-inducing maps of the unit disc*	*(p.130)*

Wavelet Transforms Chair: Boris Rubin		**MA 043**
15:00 – 15:15	**Charles N. Moore,** Department of Mathematics, Galway, Ireland *Distribution function inequalities for sums of wavelets*	*(p.142)*
15:15 – 15:30	**John Schmeelk,** Virginia Commonwealth University, Richmond, Virginia, USA *Wavelet Transforms in Generalized Fock Spaces*	*(p.154)*
15:30 – 15:45	**Boris Rubin,** Hebrew University, Jerusalem, Israel *Fractional Calculus and Wavelet Transforms in Integral Geometry*	*(p.152)*

Short Communications — Thursday, 20 August

Sobolev- and Function Spaces Chair: Michal Wojciechowky		**H 110**
16:15 – 16:30	**Ritva Hurri-Syrjanen,** University of Helsinki, Helsinki, Finland *Generalizations of Poincaré inequality*	*(p.131)*
16:30 – 16:45	**Evgueni M. Semenov,** Voronezh State University, Voronezh, Russia *Disjoint Systems and Complemented Subspaces in Rearrangement Invariant Spaces*	*(p.155)*
16:45 – 17:00	**Michal Wojciechowky,** Instytut Matematyczny Pan, Warszawa, Poland *The multidimensional Marcinkiewicz multiplier theorem for H^1 spaces on product domains*	*(p.164)*

Integral Transforms I Chair: Vakhtang M. Kokilashvili		**MA 041**
16:15 – 16:30	**Jagdish N. Pandey,** Carleton University, Ottawa, Canada *The Hilbert Transform of Almost Periodic Functions and Distributions*	*(p.146)*
16:30 – 16:45	**Alexander N. Meskhi,** A. Razmadze Mathematical Institute, Tbilisi, Georgia *Solution of some weight problems for the Riemann-Liouville and Weyl operators defined on SHT*	*(p.141)*
16:45 – 17:00	**Vakhtang M. Kokilashvili,** A. Razmadze Mathematical Institute, Tbilisi, Georgia *Solutions of Two-Weight Problems on Boundedness and Compactness for Integral Transforms*	*(p.135)*

Variational Problems Chair: Julian P. Revalski		**MA 309**
16:15 – 16:30	**Hong-Kun, H.K. Xu,** University of Durban-Westville, Durban, South Africa *Asymptotic behavior of a gradient flow*	*(p.164)*
16:30 – 16:45	**Mikhail A. Sytchev,** Sobolev Institute of Mathematics, Novosibirsk, Russia *Characterization of homogeneous scalar variational problems solvable for all boundary data*	*(p.158)*
16:45 – 17:00	**Julian P. Revalski,** Institute of Mathematics and Informatics, Sofia, Bulgaria *Porosity and variational principles*	*(p.152)*

Topological Vector Spaces and Algebras	**MA 043**
Chair: Wieslaw Zelazko	

16:15 – 16:30	**Aboubakr Bayoumi,** King Saud University College of Science, Riyadh, Saudi Arabia	
	Quasi-Differentiability and Applications in Locally Bounded Spaces	*(p.116)*
16:30 – 16:45	**Mati Abel,** University of Tartu, Tartu, Estonia	
	Structure of locally pseudoconvex algebras	*(p.112)*
16:45 – 17:00	**Wieslaw Zelazko,** Mathematical Institute, Warszawa, Poland	
	A supersimple algebra	*(p.166)*

Analytic Functions I	**H 110**
Chair: Žarko Pavićević	

17:15 – 17:30	**Shigeyoshi Owa,** Kinki University, Higashi-Osaka, Japan	
	Some Properties for Convulutions	*(p.146)*
17:30 – 17:45	**Yaroslav Ya. Prytula,** Lviv State University, Lviv, Ukraine	
	Generalization of Lindelöf Theorem	*(p.149)*
17:45 – 18:00	**Žarko Pavićević,** Univerzitet Crne Gore, Podgorica, Yugoslavia	
	Meromorphic Functions Generating Normal Families in an Arbitrary Open Subset of the Unit Disk, with respect to any Subgroup of the Group of Conformal Automorphisms of the Unit Disk	*(p.147)*

Operator Algebras	**MA 041**
Chair: Huzihiro Araki	

17:15 – 17:30	**Grigori Amosov,** Moscow Institute of Physics and Technology, Dolgopzudni, Russia	
	Cocycle conjugacy classes of Powers' semiflow of shifts	*(p.113)*
17:30 – 17:45	**Alexandr V. Kosyak,** Institute of Mathematics, Kiev, Ukraine	
	On von Neumann algebras, generated by regular representations of infinite-dimensional groups	*(p.137)*
17:45 – 18:00	**Huzihiro Araki,** Dept. Math., Science University of Tokyo, Kyoto, Japan	
	Factor types of infrared representations of the XY-model	*(p.114)*

Convexity, Semigroups, and Blocking	**MA 309**
Chair: Karl-Goswin Grosse-Erdmann	

17:15 – 17:30	**Farhad V. Hüsseinov,** Economics Department, Bilkent University, Ankara, Turkey	
	Closedness of convex hull and its applications	*(p.131)*
17:30 – 17:45	**Nobuhisa Sakakibara,** Faculty of Engineering, Ibaraki University, Hitachi, Japan	
	Perfectness of conelike $*$-semigroups in Q^k	*(p.153)*
17:45 – 18:00	**Karl-Goswin Grosse-Erdmann,** FernUniversität Hagen, Hagen, Germany	
	The blocking technique and the weighted Hardy inequality	*(p.127)*

Orthogonal Polynomials and Wavelets	**MA 043**
Chair: Thomas C. Kriecherbauer	

17:15 – 17:30	**Mohsen Taghavi,** Shiraz University, College of Sc., Shiraz, Iran	
	Exact values of the autocorrelation coefficients of the Rudin-Shapiro polynomials	*(p.159)*
17:30 – 17:45	**Ahmed I Zayed,** University of Central Florida, Orlando, Florida, USA	
	Wavelets in Closed Forms	*(p.166)*
17:45 – 18:00	**Thomas C. Kriecherbauer,** Universität München, München, Germany	
	Asymptotics of Orthogonal Polynomials via Integrable Methods	*(p.137)*

Short Communications — Friday, 21 August

Univalent Functions I — MA 041
Chair: Ruben A. Hidalgo

14:00 – 14:15	**Bruce O'Neill,** The American University in Cairo, Cairo, Egypt *Boundary Behavior of Conformal Mappings Associated with Singular Measures*	*(p.145)*
14:15 – 14:30	**Teodor Bulboacă,** Babeş-Bolyai University, Cluj-Napoca, Romania *Differential subordinations and univalent integral operators*	*(p.119)*
14:30 – 14:45	**Om Parkash Ahuja,** Nanyang Technological University, Singapore, Republic of Singapore *On Meromorphic Starlike and Convex Functions*	*(p.113)*

Integral Transforms II — MA 309
Chair: Kun Soo Chang

14:00 – 14:15	**Yukio Kuribayashi,** Faculty of Education, Tottori University, Tottori, Japan *On pseudofourier transforms*	*(p.138)*
14:15 – 14:30	**Rama Rawat,** Bar-Ilan University, Ramat Gan, Israel *Pompeiu problem and L^p analogues of Wiener-Tauberian for certain homogeneous spaces*	*(p.151)*
14:30 – 14:45	**Kun Soo Chang,** Yonsei University, Seoul, Korea, Republic of *Integral transform and convolution of analytic funtionals on abstract Wiener space*	*(p.120)*

Banach Spaces — MA 043
Chair: David Yost

14:00 – 14:15	**Parviz Azimi,** University of Sistan and Baluchestan, Zahedan, Iran *A class of hereditarily complementably ℓ_p Banach spaces*	*(p.115)*
14:15 – 14:30	**Robb C. Fry,** University of Northern British Columbia, Prince George, Canada *Smooth Bump Functions on Banach Spaces*	*(p.124)*
14:30 – 14:45	**David Yost,** Chulalongkorn University, Bangkok, Thailand *Twisted sums of classical Banach spaces*	*(p.165)*

Quasiconformal Maps — MA 041
Chair: Bruce O'Neill

15:00 – 15:15	**Alexander Jur'evich Vasil'ev,** Universidad de Los Andes, Santafe de Bogota, D.C., Colombia *Two point distortion theorems for quasiconformal mappings*	*(p.162)*
15:15 – 15:30	**Evsei M. Dynkin,** Dept. of Math., Technion, Haifa, Israel *Smoothness of quasiconformal mappings at a point*	*(p.122)*
15:30 – 15:45	**Vo Dang Thao,** University of Ho Chi Minh City, Ho Chi Minh City, Vietnam *Area Problem for quasiconformal mappings*	*(p.160)*

Sobolev Classes and Matrix Functions — MA 309
Chair: Ilya M. Spitkovsky

15:00 – 15:15	**Serguei Vodop'yanov,** Sobolev Institute of Mathematics, Novosibirsk, Russia *On open and discrete mappings of Sobolev classes with integrable dilatation*	*(p.162)*
15:15 – 15:30	**Vladimir V. Peller,** Department of Mathematics, Manhattan, USA *Regularity conditions for vectorial stationary processes*	*(p.147)*
15:30 – 15:45	**Ilya M. Spitkovsky,** The College of William and Mary, Williamsburg, USA *Almost periodic factorization and its applications*	*(p.157)*

C*-Algebras — MA 043
Chair: George A. Elliott

15:00 – 15:15	**Martin Mathieu,** Department of Mathematics, Maynooth, Co. Kildare, Ireland *A simple local multiplier algebra*	*(p.140)*
15:15 – 15:30	**Michael Frank,** Dept. Mathematics, University of Houston, Houston, Texas, USA *Conditional expectations of finite index and discrete group actions*	*(p.124)*
15:30 – 15:45	**George A. Elliott,** University of Toronto, Toronto, Canada *An abstract Weyl–von Neumann theorem*	*(p.123)*

Short Communications **Saturday, 22 August**

Univalent Functions II **H 110**
Chair: Arne Stray

16:15 – 16:30	**Peter Duren,** Department of Mathematics, Ann Arbor, Michigan, USA *Hyperbolic Capacity and its Distortion under Conformal Mapping* *(p.122)*
16:30 – 16:45	**Ilgiz G. Kayumov,** Inst. of Math. and Mech., Kazan University, Kazan, Russia *Asymptotical behaviour of logarithmic coefficients of univalent functions* *(p.134)*
16:45 – 17:00	**Dmitri V. Prokhorov,** Saratov State University, Saratov, Russian Federation *Estimates of linear functionals for bounded univalent functions* *(p.149)*

Inequalities and Interpolation **MA 041**
Chair: Vladimir I. Ovchinnikov

16:15 – 16:30	**Vladislav F. Babenko,** Dnepropetrovsk State University, Dnepropetrovsk, Ukraine *Inequalities of Landau–Kolmogorov–Nagy Type* *(p.115)*
16:30 – 16:45	**Vladimir Alexandrovich Kofanov,** Dnepropetrovsk State University, Dnepropetrovsk, Ukraine *Exact Inequalities of Kolmogorov Type for Periodic Functions of Small Smoothness* *(p.135)*
16:45 – 17:00	**Vladimir I. Ovchinnikov,** Voronezh State University, Voronezh, Russia *Nonclassical Interpolation Theorems in Spaces of Smooth Functions* *(p.146)*

Measure and Integration **MA 309**
Chair: Carmen D. Vlad

16:15 – 16:30	**Alexandre V. Mikhalev,** Moscow State University, Moscow, Russia *Solution of Riesz-Radon problem* *(p.141)*
16:30 – 16:45	**Valeriy Konstantinovich Zakharov,** Saint Petersburg State University of Technology and Design, Saint Petersburg, Russia *A solution of the general Riesz-Radon problem for a Hausdorff space* *(p.166)*
16:45 – 17:00	**Carmen D. Vlad,** Pace University, New York, NY, USA *Outer measures and countably additivity of measures* *(p.162)*

Banach Algebras and Fredholm Maps **MA 043**
Chair: Kari E. Ylinen

16:15 – 16:30	**Victor G. Zvyagin,** Voronezh State University, Voronezh, Russia *Topological methods in the theory of perturbations of Fredholm maps and applications* *(p.167)*
16:30 – 16:45	**Hans-Olav I. Tylli,** Department of Mathematics, University of Helsinki, Finland *Rigidity of commutators and elementary operators on Calkin algebras* *(p.161)*
16:45 – 17:00	**Kari E. Ylinen,** University of Turku, Turku, Finland *Positive definite operator functions on groups and related multilinear operators on products of Banach-*-algebras* *(p.165)*

Hilbert and Krein Spaces **H 110**
Chair: Vladimir Strauss

17:15 – 17:30	**Elias Flytzanis,** Athens University of Economics and Business, Athens, Greece *An invariance property of quadratic forms* *(p.123)*
17:30 – 17:45	**Michael Gebel,** Inst. Angew. Mathem. I, TU Bergakademie, Freiberg, Germany *Spectral Theory of Adjointable Operators in Spaces with two Metrics* *(p.125)*
17:45 – 18:00	**Vladimir Strauss,** Departamento de Matemáticas, U.S.B., Caracas, Venezuela *On a model representation for a normal operator in Krein space* *(p.158)*

Multivalued Mappings, Weighted Inequalities, and Means **MA 041**
Chair: Lars-Erik Persson

17:15 – 17:30	**B.K. Sharma,** Pt. Ravishankar Shukla University, Raipur, India *A Strong Convergence Theorem for Multivalued Nonexpansive Mappings* *(p.155)*
17:30 – 17:45	**Zheng Liu,** Anshan Institute of Iron and Steel, Anshan, China, Peoples Republic of *Inequalities for Some Means* *(p.139)*
17:45 – 18:00	**Lars-Erik Persson,** Luleå University, Luleå, Sweden *Sharp multidimensional multiplicative inequalities for weighted Lebegue spaces* *(p.147)*

Dunkl Operators and Hyperfunctions		**MA 309**
Chair: Dohan Kim		
17:15 – 17:30	**Margit Rösler,** Technische Universität München, München, Germany *Positivity of Dunkl's intertwining operator*	*(p.152)*
17:30 – 17:45	**Stevan Pilipović,** University of Novi Sad, Novi Sad, Yugoslavia *Suppleness of Some Quotient Spaces of Microfunctions*	*(p.147)*
17:45 – 18:00	**Dohan Kim,** Dept. of Math., Seoul National Univ., Seoul, Korea, Republic of *Moment problem for hyperfunctions and the heat kernel method*	*(p.134)*

Measure Problems		**MA 043**
Chair: Jiří Jarník		
17:15 – 17:30	**Raymond J. Grinnell,** University of the West Indies, Bridgetown, Barbados *Two real functions associated with convolutions of measures*	*(p.127)*
17:30 – 17:45	**Daniar H. Mushtari,** Inst. of Math. and Mech., Kazan University, Kazan, Russia *Orthomodular posets of projections on linear spaces and signed measures on them*	*(p.143)*
17:45 – 18:00	**Jiří Jarník,** Pedagogicka Fakulta UK, Praha, Czech Republic *Convergence theorem for Henstock–Kurzweil integral based on the convergence of primitives*	*(p.132)*

Short Communications — Monday, 24 August

Several Complex Variables		**MA 041**
Chair: Stefan B.A. Jakobsson		
14:00 – 14:15	**Yoshihiro Abe,** Toyama University, Yokohama, Japan *Universal functions in several variables*	*(p.112)*
14:15 – 14:30	**Elias Wegert,** TU Bergakademie Freiberg, Freiberg, Germany *Analytic discs attached to totally real surfaces*	*(p.163)*
14:30 – 14:45	**Gabriela Kohr,** Babeş-Bolyai University, Cluj-Napoca, Romania *Univalent mappings of several complex variables*	*(p.135)*

Real Analysis		**MA 309**
Chair: Gilbert Helmberg		
14:00 – 14:15	**Jan Hejcman,** University of Education, Hradec Králové, Praha, Czech Republic *A description of quasiconvex functions*	*(p.129)*
14:15 – 14:30	**Attila Gilányi,** Lajos Kossuth University, Debrecen, Hungary *On polynomial functions, monomial functions, and the Dinghas interval derivative*	*(p.125)*
14:30 – 14:45	**Joris van der Hoeven,** École Polytechnique, Paris, France *Proof of a conjecture of Hardy about L-functions*	*(p.161)*

Approximation Theory		**MA 043**
Chair: Miguel A. Jimenez		
14:00 – 14:15	**Alexander Yakovlevich Radyno,** Belarusian State University, Minsk, Belarus *The degree of rational approximation of a holomorphic function*	*(p.149)*
14:15 – 14:30	**Yuri Kryakin,** Odessa State Polytechnic University, Odessa, Ukraine *Polynomial Interpolation and Whitney's Constants*	*(p.138)*
14:30 – 14:45	**Miguel A. Jimenez,** BUAP Puebla, Puebla, Mexico *The Degree of Best Approximation in the Lipschitz Norm by Trigonometric Polynomials*	*(p.133)*

Harmonic Functions		**MA 041**
Chair: Elias Wegert		
15:00 – 15:15	**Anna Łazińska,** University of Łódź, Łódź, Poland *On a class of mappings harmonic in the half-plane, with a normalization at infinity*	*(p.138)*
15:15 – 15:30	**Promarz M. Tamrazov,** Inst. of Math. of National Acad. of Sci. of Ukraine, Kiev, Ukraine *The solution of Eremenko's extremal problem on harmonic functions*	*(p.159)*
15:30 – 15:45	**Eleutherius E. Symeonidis,** Katholische Universität Eichstätt, Eichstätt, Germany *The Poisson integral as an appropriate mean value*	*(p.159)*

A New View of Classical Phenomena **MA 309**
Chair: Gilbert Helmberg

15:00 – 15:15	**Andreas M. Hinz,** Technische Universität München, München, Germany *Catenaria vera — the true catenary*	*(p.130)*
15:15 – 15:30	**J. Marshall Ash,** DePaul University, Chicago, USA *Nonuniqueness for smooth uniformly bounded orthonormal systems*	*(p.114)*
15:30 – 15:45	**Gilbert Helmberg,** Institut f. Math. u. Geometrie, Universität Innsbruck, Innsbruck, Austria *A corner-point Gibbs phenomenon for Fourier series in two dimensions*	*(p.129)*

Vector Lattices **MA 043**
Chair: Jacobus J. Grobler

15:00 – 15:15	**Rodica Mihaela Danet,** Technical University of Bucharest, Bucharest, Romania *The extension of some linear operators*	*(p.121)*
15:15 – 15:30	**Nicolae Danet,** Technical University of Bucharest, Bucharest, Romania *Subspaces in directed vector spaces*	*(p.121)*
15:30 – 15:45	**Jacobus J. Grobler,** Potchefstroom University for CHE, Potchefstroom, South Africa *The polar decomposition of disjointness preserving operators*	*(p.127)*

Short Communications — Tuesday, 25 August

Miscellaneous **MA 309**
Chair: Eberhard Kirchberg

15:00 – 15:15	**Eberhard Kirchberg,** Humboldt–Universität, Berlin, Germany *Classification of non-simple nuclear C*-algebras*	
15:15 – 15:30	**Volodymyr K. Maslyuchenko,** Chernivtsi University, Chernivtsi, Ukraine *Separately continuous mappings: Van Vleck spaces and inverse problems*	

Hilbert Spaces, Wavelets, and Fractals **H 110**
Chair: Gerald S. Goodman

16:15 – 16:30	**Kofi V.S. Assiamoua,** Université du Bénin, Lomé, Togo *A product of sesquilinear mappings on Hilbert spaces*	*(p.114)*
16:30 – 16:45	**Raquel-Garcia Catalan,** University of Zaragoza, Zaragoza, Spain *From MRA to Tight Frames*	*(p.120)*
16:45 – 17:00	**Gerald S. Goodman,** University of Florence, Florence, Italy *Dilation equations and Hutchinson fractals*	*(p.126)*

Real and Complex Approximation **MA 041**
Chair: Mirela Kohr

16:15 – 16:30	**Nikolai Ya. Radyno,** Institute of Mathematics, Minsk, Belarus *Some elements of a General Spectral Theory of Banach modules and their applications*	*(p.150)*
16:30 – 16:45	**Oxana V. Motornaya,** Dnepropetrovsk State University, Dnepropetrovsk, Ukraine *On the Approximation of the Functions by Algebraic Polynomials*	*(p.142)*
16:45 – 17:00	**Andrey Olegovich Matveev,** Institute of Mathematics and Mechanics, Ekaterinburg, Russia *Error estimates for scattered data interpolation*	

Spectral Analysis and Operator Algebras **MA 309**
Chair: Sa Ge Lee

16:15 – 16:30	**Antoine-A.P. Bredimas,** University Paris 7, Paris, France *Schlicht functions and exotic sprectral analysis: Applications to some conjectures and problems in analysis*	*(p.118)*
16:30 – 16:45	**Valentyn Ja. Golodets,** Institute for Low Temperature Physics, Kharkov, Ukraine *Dynamical entropy and quantum K-systems*	*(p.126)*
16:45 – 17:00	**Sa Ge Lee,** Seoul National University, Seoul, Korea, Republic of *The generalized normal state space and unital normal completely positive map*	*(p.139)*

Matrix and Operator Functions **MA 043**
Chair: George N. Khimshiashvili

16:15 – 16:30	**Marcin J. Zygmunt,** Institute of Mathematics PAN, Krakow, Poland *Matrix Moment Problem*	*(p.167)*
16:30 – 16:45	**Frank-Olme Speck,** Universidade Técnica de Lisboa, Lisboa, Portugal *Relations between convolution type operators on intervals and on the half-line*	*(p.157)*
16:45 – 17:00	**George N. Khimshiashvili,** University of Łódź, Łódź, Poland *Homotopy classes of elliptic boundary problems*	*(p.134)*

Analytic Functions II **H 110**
Chair: Mohamed Abdel-Megied

17:15 – 17:30	**Gueorgui S. Litvinchuk,** Universidade da Madeira, Funchal, Portugal *On solvability theory of Hilbert boundary value problem with a Carleman shift*	*(p.139)*
17:30 – 17:45	**Mirela Kohr,** Babeş-Bolyai University, Cluj-Napoca, Romania *A direct boundary integral formulation for a Stokes flow problem*	*(p.135)*
17:45 – 18:00	**Rauno Aulaskari,** University of Joensuu, Joensuu, Finland Q_p*-spaces on Riemann surfaces*	*(p.115)*

Nonlinear Operators **MA 041**
Chair: Richard M. Dudley

17:15 – 17:30	**Radoje Šćepanović,** Univerzitet Crne Gore, Podgorica, Yugoslavia *On Solvability of Some Nonlinear Equations in Hilbert Spaces*	*(p.154)*
17:30 – 17:45	**Vladilen A. Trenogin,** Moscow State Steel & Alloys Institute, Moscow, Russia *Parameter continuation method and solvability of nonlinear equations*	*(p.160)*
17:45 – 18:00	**Richard M. Dudley,** MIT, Cambridge, MA, USA *Differentiability of six nonlinear operators on nonsmooth functions*	*(p.122)*

Convexity, Banach Spaces, and Isometries **MA 309**
Chair: Themistocles M. Rassias

17:15 – 17:30	**Alexander Ya. Kruger,** International Institute of Labour and Social Relations, Minsk, Belarus *On extremality of set systems*	*(p.137)*
17:30 – 17:45	**Ryszard Grząślewicz,** Wrocław University of Technology, Wrocław, Poland *Quasi-interior points for convex sets*	*(p.128)*
17:45 – 18:00	**Themistocles M. Rassias,** National Technical University of Athens, Athens, Greece *On the Mazur-Ulam Theorem and the Aleksandrov Problem of Conservative Distances*	*(p.151)*

Sequence and Function Spaces **MA 043**
Chair: Jan H. Fourie

17:15 – 17:30	**Abdul J. Badiozzaman,** Chamran University, Ahvaz, Iran *On a Tauberian Theorem of G.M. Petersen for Abel Summability*	*(p.116)*
17:30 – 17:45	**Detlef Seydel,** FH-Braunschweig/Wolfenbüttel, Wolfsburg, Germany *Matrix Maps of Quasiconvex Null Sequences*	*(p.155)*
17:45 – 18:00	**Jan H. Fourie,** Potchefstroom University, Potchefstroom, South Africa *On convergence of sections of weakly p-summable sequences*	*(p.123)*

Short Communications — Wednesday, 26 August

Special Functions **MA 041**
Chair: Promarz M. Tamrazov

14:00 – 14:15	**Raoul R.F.G. Gloden,** Cours Universitaires, Luxembourg, Luxembourg *Propriétés des polynômes orthogonaux. Développements de cas particuliers*	*(p.126)*
14:15 – 14:30	**Kathy A. Driver,** University of Witwatersrand, Johannesburg, South Africa *Zeros of Hypergeometric Functions*	*(p.121)*
14:30 – 14:45	**Momčilo Bjelica,** University of Novi Sad, Zrenjanin, Yugoslavia *Asymptotic of means*	*(p.117)*

Metrizable Spaces, Riesz Spaces, and Integral Representations Chair: Paul Ressel		**MA 309**
14:00 – 14:15	**Shozo Koshi,** Hokkaido Institute of Technology, Sapporo, Japan *Partially ordered linear space*	*(p.136)*
14:15 – 14:30	**Luis M. Sánchez Ruiz,** Universidad Politécnica de Valencia, Valencia, Spain *On Metrizable Barreled Spaces, Cardinals and Dimensionality*	*(p.153)*
14:30 – 14:45	**Paul Ressel,** Kath. Universität Eichstätt, Eichstätt, Germany *Semigroup representations, positive definite functions, and abelian C*-algebras*	*(p.152)*

Operator Algebras and Systems Chair: Palle E.T. Jorgensen		**MA 043**
14:00 – 14:15	**B.V. Rajarama Bhat,** Indian Statistical Institute, Bangalore, India *Minimal dilation of quantum dynamical semigroups to semigroups of endomorphisms*	*(p.116)*
14:15 – 14:30	**Wend Werner,** Universität Paderborn, Paderborn, Germany *Operator Systems without Unit*	*(p.163)*
14:30 – 14:45	**Palle E.T. Jorgensen,** The University of Iowa, Iowa City, IA, USA *Ruelle operators: Functions which are harmonic with respect to a transfer operator*	*(p.133)*

Kleinian Groups Chair: Alexander Jur'evich Vasil'ev		**MA 041**
15:00 – 15:15	**Ruben A. Hidalgo,** UTFSM, Valparaiso Casilla, Chile $\mathcal{A}_4$, $\mathcal{A}_5$, *and* $\mathcal{S}_4$ *of Schottky Type*	*(p.130)*
15:15 – 15:30	**Weiqi Yang,** Beijing Institute of Technology, Beijing, P.R. of China *Discrete groups and dense groups*	*(p.164)*
15:30 – 15:45	**Javier Pérez,** Universidad Nacional de Educación a Distancia, Madrid, Spain *Harmonic differentials on Klein Surfaces*	*(p.147)*

Analytic Functions and Toeplitz Operators Chair: Marek Ptak		**MA 309**
15:00 – 15:15	**Ali Abkar,** Lund University, Lund, Sweden *A comparison theorem concerning hyperinvariant subspaces on finitely connected domains*	*(p.113)*
15:15 – 15:30	**Slavko Simic,** Belgrade, Yugoslavia *Entire Functions of Finite Order and Regularly Varying Sequences*	*(p.156)*
15:30 – 15:45	**Marek Ptak,** University of Agriculture, Kraków, Poland *Toeplitz operators; dichotomy of reflexivity and transitivity*	*(p.149)*

Operator Algebras and Algebras of Operators Chair: Vladimir Manuilov		**MA 043**
15:00 – 15:15	**Raphael S. Ponge,** Univ. Paris-Sud, Dpt. of Math., Orsay, France *Wodzicki Residue for Heisenberg Manifolds*	*(p.148)*
15:15 – 15:30	**Georgios F. Nassopoulos,** University of Athens, Athens, Greece *Coproducts and projective presentations of operator algebras*	*(p.144)*
15:30 – 15:45	**Vladimir Manuilov,** Moscow State University, Moscow, Russia *Almost representations of discrete groups and* K*-theory*	*(p.140)*

Poster Session — Wednesday, 19 August

14:00 – 15:45 **MA 144**

Aldric L. Brown, The Pnajab University, Chandigarh, India
Operator convex functions of two variables *(p.118)*

Mao-Ting Chien, Soochow University, Taipei, Taiwan
A parametrization of the c-numerical ranges of certain matrices *(p.120)*

William C. Connett, University of Missouri, St. Louis, MO, USA
Measure algebras that have oblate spheroidal wave functions as characters *(p.121)*

Sonja Mouton, University of Stellenbosch, Matieland, South Africa
Some spectral properties in ordered Banach algebras *(p.143)*

Poster Session **Friday, 21 August**
14:00 – 15:45 **MA 144**

Jelena Ausekle, Tartu University, Tartu, Estonia
Compactness of Operators Acting in the Lorentz and Orlicz Sequence Spaces *(p.115)*

Prodipeswar Bhattacharyya, Indian Institute of Technology, Chennai, India
On the domain of normality in iteration theory *(p.117)*

Davor Butkovic, University of Zagreb, Zagreb, Croatia
Transformations of regular almost convergent sequences *(p.119)*

Rainis Haller, Tartu University, Tartu, Estonia
$M(r, s)$-inequality and reflexivity *(p.128)*

Katsunori Iwasaki, Kyushu University, Fukuoka, Japan
Polyhedral harmonic functions and invariant theory *(p.132)*

Volodymyr M. Kadets, Kharkov State University, Kharkov, Ukraine
The Lyapunov property of certain Banach spaces *(p.133)*

Shuichi Ohno, Nippon Institute of Technology, Miyashiro Saitama, Japan
Topological structure of the space of composition operators on H^∞ *(p.145)*

Eve Oja, Tartu University, Tartu, Estonia
Lifting approximation properties and ideals of compact and approximable operators *(p.145)*

Zdzislaw Otachel, Inst. of Appl. Math. Agric. Univ. of Lublin, Lublin, Poland
Cone Preorders in Measurable Function Spaces *(p.145)*

Märt Põldvere, Tartu University, Tartu, Estonia
On subspaces of Banach spaces having Phelps' uniqueness property *(p.148)*

Sen-Yen Shaw, National Central University, Chung-Li, China, Taiwan
Convergence rates of regularized approximation processes *(p.156)*

Panagiotis D. Stratigos, Long Island University, Brooklyn, N.Y., USA
On general measure repleteness and completeness *(p.158)*

Poster Session **Wednesday, 26 August**
14:00 – 15:45 **MA 144**

Ants Aasma, Tallinn Pedagogical University, Tallinn, Estonia
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, Faculté des Sciences Mohammed V, Errachidia, Morocco
q-Derivation, Sine algebra, and $Ut(sl(2))$ *(p.123)*

Stefan B.A. Jakobsson, University of Lund, Lund, Sweden
Applications of weighted Hele-Shaw flow and kernel function techniques to Green functions for weighted biharmonic operators *(p.132)*

Volodymyr M. Kolodyazhniy, Kharkiv Aviation Institute, Kharkiv, Ukraine
Nonlinear Identification Problem Solution Using the Wavelets of the Atomic Functions *(p.136)*

Hrvoje Kraljevic, University of Zagreb, Zagreb, Croatia
Landau's type inequalities for contraction cosine functions *(p.137)*

Carlos Lizama, Universidad de Santiago de Chile, Santiago Correo, Chile
A Characterization of Uniform Continuity for Volterra Equations in Hilbert Spaces *(p.140)*

Igor-Ya. Novikov, Voronezh State University, Voronezh, Russia
Time-frequency localization of modified Daubechies wavelets *(p.144)*

Alan L. Schwartz, University of Missouri-St. Louis, St. Louis, MO, USA
Hypergroups and their maximum subgroup *(p.154)*

Katsunori Shimomura, Ibaraki University, Mito, Japan
On the transformations which preserve polytemperatures *(p.156)*

Feng-Yu Wang, Beijing Normal University, Beijing, P.R. China
Harnack inequality for heat semigroups and log-Sobolev inequalities *(p.163)*

Oxana A. Ziza, Moscow State Institute of Electronics and Mathematics, Moscow, Russia
On absolute summability of orthogonal series *(p.167)*