

Monday, July 12

MA 001

9:00	OPENING
9:15	In memory of Israel Gohberg Speeches from A. Markus, L. Rodman and M.A. Kaashoek

Plenary Lecture

9:45	H. Langer Linearization of self-adjoint analytic operator functions
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10:45 *Coffee break*

MA 004

Semiplenary Lectures

MA 005

11:15	B. Helton Convex matrix inequalities vs linear matrix inequalities	C. Tretter Unbounded block operator matrices and recent applications
12:00	A.C.M. Ran Eigenvalues of rank one perturbations of matrices	M. Hieber Asymptotic behaviour of the Stokes-Coriolis-Ekman system
12:45	A. Luger (Generalized) Nevanlinna functions - Old and new	V. Müller Orbits of operators and operator semigroups

13:30 *Lunch break*

Special Sessions and Contributed Talks

	MA 005	MA 415	MA 649	MA 650	MA 651	MA 749	MA 750	MA 751
15:00	Dewilde	Azizov	Batty	Sommen	Giorgadze	Malamud	Blaschke	Rhandi
15:25	Dym	Pyatkov	Kerchy	Ren	Yattselev	Wood	Straube	Martinez-Gimenez
15:50	Kirstein	Kisil	Levene	Ebert	Shabalin	Hiscox	Herbig	Miana
16:15	Lewkowicz	Kirillov	Djordjevic	Kähler	Martin	Weikard	Haslinger	Kim
16:40	Shoiket	Philipp	Atanasiu	Cerejeiras	Akhmetova		Gansberger	Conejero

17:05 *Coffee break*

17:40	Derevyagin	Sheipak	ter Elst	Askour	Rodman	Demuth	Diogo	Stochel
18:05	Mädler	Wojtylak	Posilicano	Faustino	Mehl	Zinsou	Molnar	Yannakakis
18:30	Melnikov	Denisov	Currie	Kisil	Karow	Tkachenko	Conceicao	Wanjala
18:55	Raabe	Sukhocheva	Abasheeva		Martinez-Peria	Torba	Malheiro	Das
19:20	Volok	Günther	A. Savchuk		Maestripieri	Waurick	Camara	Paul
19:45	Lasarow							

Monday Room 005

Recent Development in Schur Analysis

Chair: D. Alpay

- 15:00 – 15:25 **P. Dewilde**
Combining Schur interpolation and Schur elimination to produce new types of matrix conditioners
- 15:25 – 15:50 **H. Dym**
Bitangential interpolation in generalized Schur classes
- 15:50 – 16:15 **B. Kirstein**
Description of Helson-Szegö measures in terms of the Schur parameter sequences of associated Schur functions
- 16:15 – 16:40 **I. Lewkowicz**
Convex cones of generalized positive rational functions and Nevanlinna-Pick interpolation
- 16:40 – 17:05 **D. Shoiket**
Boundary singularities of holomorphic generators

Recent Development in Schur Analysis

Chair: D. Alpay

- 17:40 – 18:05 **M. Derevyagin**
The Jacobi matrices approach to Nevanlinna-Pick problems
- 18:05 – 18:30 **C. Mädler**
On the truncated matricial Stieltjes moment problem
- 18:30 – 18:55 **A. Melnikov**
The inverse problem in the quantum theory of scattering using theory of vessels
- 18:55 – 19:20 **U. Raabe**
An interpolation problem for Potapov functions
- 19:20 – 19:45 **D. Volok**
Positive extensions of matrices indexed by a homogeneous tree
- 19:45 – 20:10 **A. Lasarow**
On canonical solutions of the truncated trigonometric matrix moment problem

Monday Room 415

Operator Theory in Krein Spaces

Chair: H. Langer

- 15:00 – 15:25 **T. Azizov**
On negative eigenvalues of a linear pencil
- 15:25 – 15:50 **S.G. Pyatkov**
On existence of maximal semidefinite invariant subspaces
- 15:50 – 16:15 **V.V. Kisil**
Covariant spectrum and Krein spaces
- 16:15 – 16:40 **O. Kirillov**
Krein signature and eigencurves of non-conservative gyroscopic systems
- 16:40 – 17:05 **F. Philipp**
Locally definite normal operators in Krein spaces

Operator Theory in Krein Spaces

Chair: S. Kuzhel

- 17:40 – 18:05 **I.A. Sheipak**
On the spectrum of some class of Jacobi operators in Krein space
- 18:05 – 18:30 **M. Wojtylak**
Zeros of nonpositive type of Nevanlinna functions with one negative square
- 18:30 – 18:55 **M. Denisov**
On the spectral properties of the product of two selfadjoint operators
- 18:55 – 19:20 **L.I. Sukhocheva**
On a smoothness of a linear pencil and its factor
- 19:20 – 19:45 **U. Günther**
PT-symmetry, Cartan decompositions, Lie triple systems and Krein space related Clifford algebras

Monday Room 649

Contributed Talks

Chair: L. Weis

- 15:00 – 15:25 **C. Batty**
Quasi-hyperbolic operators and semigroups
- 15:25 – 15:50 **L. Kerchy**
Operator semigroups of regular norm-behaviour
- 15:50 – 16:15 **R. Levene**
Completely bounded norms of right module maps
- 16:15 – 16:40 **S. Djordjevic**
Compact perturbations of linear bounded operator that preserve spectral continuity
- 16:40 – 17:05 **D. Atanasiu**
Completely positive definite functions on a commutative semigroup with involution

Contributed Talks

Chair: M. Langer

- 17:40 – 18:05 **T. ter Elst**
The Dirichlet-to-Neumann operator on rough domains
- 18:05 – 18:30 **A. Posilicano**
Laplacians on non-convex polygons, quantum graphs and Dirichlet network squeezing
- 18:30 – 18:55 **S. Currie**
Differential operators on graphs - an overview
- 18:55 – 19:20 **N.L. Abasheeva**
Some boundary value problems for operator-differential equations of mixed type and their applications to inverse problems
- 19:20 – 19:45 **A.M. Savchuk**
Spectral properties of the Dirac operators on finite interval with potentials from L_p and Sobolev spaces

Monday Room 650

The Heisenberg Group for Time-Frequency and Phase Space Analysis

Chair: M. de Gosson

- 15:00 – 15:25 **F. Sommen**
Fourier-Borel transforms in Clifford Analysis
- 15:25 – 15:50 **G. Ren**
Einstein transforms
- 15:50 – 16:15 **S. Ebert**
Diffusive wavelets and the Heisenberg group
- 16:15 – 16:40 **U. Kähler**
Special Skew-Weyl relations and discrete time-frequency analysis
- 16:40 – 17:05 **P. Cerejeiras**
Phase space analysis in Dunkl setting

The Heisenberg Group for Time-Frequency and Phase Space Analysis

Chair: A. Vourdas

- 17:40 – 18:05 **N. Askour**
Resolvent kernel for the Kohn Laplacian on the Heisenberg group by means of a Schrödinger operator with magnetic field
- 18:05 – 18:30 **N. Faustino**
Quantum mechanical methods in electromagnetism
- 18:30 – 18:55 **V.V. Kisil**
Hypercomplex representations of the Heisenberg group: p-mechanics

Monday Room 651

The Boundary Value Problems for Holomorphic Functions and Singular Integral Operators with Applications

Chair: **B. Kats**

- 15:00 – 15:25 **G. Giorgadze**
Riemann-Hilbert problems on compact Riemann surfaces
- 15:25 – 15:50 **M. Yattselev**
Convergent interpolation to Cauchy integrals over analytic arcs with Jacobi-type weights
- 15:50 – 16:15 **P. Shabalin**
The Riemann-Hilbert boundary value problem with a countable set of coefficients and two-side curling at infinity of order less than $1/2$
- 16:15 – 16:40 **F. Martin**
Adaptive wavelet methods for the Hilbert transform and Riemann-Hilbert problems
- 16:40 – 17:05 **A. Akhmetova**
Quasiconformal mappings associated with Gahov's equation in inverse boundary value problems

Indefinite Linear Algebra

Chair: **A.C.M. Ran**

- 17:40 – 18:05 **L. Rodman**
Perturbation analysis of canonical forms
- 18:05 – 18:30 **C. Mehl**
Generic rank one perturbation of complex Hamiltonian matrices
- 18:30 – 18:55 **M. Karow**
Structured pseudospectra of Hamiltonian matrices
- 18:55 – 19:20 **F. Martinez-Peria**
Schur complements in Krein spaces
- 19:20 – 19:45 **A. Maestripieri**
Positive decompositions of selfadjoint operators

Monday Room 749

Sturm Liouville Problems

Chair: B.M. Brown

- 15:00 – 15:25 **M. Malamud**
Spectral theory of Schrödinger operators with point interactions on a discrete set
- 15:25 – 15:50 **I. Wood**
The abstract Titchmarsh-Weyl M-function and its relation to the spectrum
- 15:50 – 16:15 **A. Hiscox**
The low-energy behaviour of Regge poles
- 16:15 – 16:40 **R. Weikard**
On the stability of inverse resonance problems

Contributed Talks

Chair: R. Hryniv

- 17:40 – 18:05 **M. Demuth**
On the distribution of the eigenvalues for non-selfadjoint operators
- 18:05 – 18:30 **B. Zinsou**
Self-adjoint fourth order differential operators with eigenvalue parameter dependent boundary conditions
- 18:30 – 18:55 **V. Tkachenko**
When is a non-self-adjoint Hill operator a spectral operator of scalar type?
- 18:55 – 19:20 **S. Torba**
On operator analogue of Jackson inequality
- 19:20 – 19:45 **M. Waurick**
Calculating adjoints of operators on infinite graphs

Monday Room 750

The Interplay between Operator Theory and the $\bar{\partial}$ -Neumann Problem

Chair: C. Zuckovic

- 15:00 – 15:25 **P. Blaschke**
Asymptotic behavior of Bergman kernels with logarithmic weight
- 15:25 – 15:50 **E. Straube**
Compactness of the complex Green operator
- 15:50 – 16:15 **A.-K. Herbig**
A smoothing property of the Bergman projection
- 16:15 – 16:40 **F. Haslinger**
Compactness for the $\bar{\partial}$ -Neumann problem – a functional analysis approach
- 16:40 – 17:05 **K. Gansberger**
 $\bar{\partial}$ and the Dirac operator

Contributed Talks

Chair: N. Vasilevski

- 17:40 – 18:05 **C. Diogo**
Some properties of Fredholm type for Toeplitz operators with 2×2 symbols
- 18:05 – 18:30 **L. Molnar**
Linear maps on observables in von Neumann algebras preserving the maximal deviation
- 18:30 – 18:55 **A. Conceição**
Explicit factorization of matrix functions with Mathematica 6.0
- 18:55 – 19:20 **M.T. Malheiro**
Wiener-Hopf factorization for a class of matrix functions using an isomorphism with a group of scalar functions on a Riemann surface
- 19:20 – 19:45 **C. Câmara**
Fredholm properties of Toeplitz operators and meromorphic corona problems

Monday Room 751

Dynamics and Operator Theory

Chair: A. Peris

- 15:00 – 15:25 **A. Rhandi**
Non-autonomous Ornstein-Uhlenbeck operators in exterior domains
- 15:25 – 15:50 **F. Martinez-Gimenez**
Operators with specification properties
- 15:50 – 16:15 **P.J. Miana**
Landau inequalities and extensions of domains for convoluted families of operators
- 16:15 – 16:40 **V.E. Kim**
Completeness of translates of entire functions and hypercyclic operators
- 16:40 – 17:05 **J.A. Conejero**
Chaotic shift operators coming from polynomials

Contributed Talks

Chair: F.H. Szafraniec

- 17:40 – 18:05 **J. Stochel**
Completion problem for subnormal and completely hyperexpansive weighted shifts
- 18:05 – 18:30 **N. Yannakakis**
The cosine of a linear operator revisited
- 18:30 – 18:55 **G. Wanjala**
On invariant subspaces of absolutely (p,q) -summing operators
- 18:55 – 19:20 **G. Das**
Cosine of angle and center of mass of an operator
- 19:20 – 19:45 **K. Paul**
 θ -Antieigenvalues and θ -Antieigenvectors