

PROGRAM AT GLANCE

Tuesday, 11 September 2018

8:00 – 8:50	Registration	B316
8:50 – 9:00	Opening ceremony	
9:00 – 10:00	Invited talk Chair: Ludwig Title: “Affine” isoperimetric inequalities in real space forms Speaker(s): Schuster	B319
10:00 – 10:30	Coffee break	
10:30 – 11:30	Invited talk Chair: Kalina Title: Applications of copulas for a maxmin system to order statistics and to reliability theory Speaker(s): Omladič	B319
11:35 – 12:50	Session Chair: Kopecká Workshop on Functional Analysis and Geometry I	B319
	Session Chair: Kalina Workshop on Uncertainty Modelling I	C202
13:00 – 15:00	Lunch	
15:00 – 16:15	Session Chair: Dymond Workshop on Functional Analysis and Geometry II	B319
	Session Chair: Boix Commutative Algebra and Algebraic Geometry I	C202
16:15 – 16:45	Coffee break	

Wednesday, 12 September 2018

8:00 – 9:00	Registration	B316
9:00 – 10:00	Invited talk Chair: Nedela Title: Mysterious snarks Speaker: Škoviera	B319
10:00 – 10:30	Coffee break	
10:30 – 11:30	Invited talk Chair: Potočník Title: Operator semigroups approach to dynamical processes on metric graphs Speaker(s): Fijavž	B319
11:35 – 12:50	Session Chair: Ludwig Workshop on Functional Analysis and Geometry III	B319
	Session Chair: Omladič Workshop on Uncertainty Modelling II	B202
	Session Chair: Jajcay Algebraic and Topological Graph Theory I	C202
13:00 – 15:00	Lunch	
15:00 – 16:15	Session Chair: Schuster Workshop on Functional Analysis and Geometry IV	B319
	Session Chair: Hutník Workshop on Uncertainty Modelling III	B210
	Session Chair: Malnic Algebraic and Topological Graph Theory II	C202
	Session Chair: Chalmovianska Commutative Algebra and Algebraic Geometry II	B202
16:15 – 16:45	Coffee break	
16:45 – 18:00	Session Chair: Herbera Commutative Algebra and Algebraic Geometry III	B319

PROGRAM AT GLANCE (cont.)

Thursday, 13 September 2018

8:00 – 9:00	<i>Registration</i>		B316
9:00 – 10:00	<i>Invited talk</i>	Chair: Kratochvíl	B319
	Title: On understanding principles and predicting the cost of some numerical computation		
	Speaker: Strakoš		
10:00 – 10:30	<i>Coffee break</i>		
10:30 – 11:30	<i>Invited talk</i>	Chair: Zarzuela	B319
	Title: From algebraic topology to motivic homotopy		
	Speaker: Casacuberta		
11:35 – 12:50	<i>Session</i>	Chair: Remešíková	B210
	Numerical Workshop I		
	<i>Session</i>	Chair: Teofanov	C202
	TIFMOFUS I		
	<i>Session</i>	Chair: Drmota	B319
	Graph Theory and Combinatorics I		
	<i>Session</i>	Chair: Herbera	B202
	Categorical Methods in Algebra and Topology I		
13:00 – 15:00	<i>Lunch</i>		
15:00 – 16:15	<i>Session</i>	Chair: Tibenský	B210
	Numerical Workshop II		
	<i>Session</i>	Chair: Feichtinger	C202
	TIFMOFUS II		
	<i>Session</i>	Chair: Kratochvíl	B319
	Graph Theory and Combinatorics II		
	<i>Session</i>	Chair: Šťovíček	B202
	Categorical Methods in Algebra and Topology II		
16:15 – 16:45	<i>Coffee break</i>		
16:45 – 18:25	<i>Session</i>	Chair: Tibenský	B210
	Numerical Workshop III		
	<i>Session</i>	Chair: Balázs	C202
	TIFMOFUS III		
	<i>Session</i>	Chair: Škoviera	B319
	Graph Theory and Combinatorics III		
	<i>Session</i>	Chair: Zarzuela	B202
	Commutative Algebra and Algebraic Geometry IV		
19:00	<i>Conference dinner</i>		

PROGRAM AT GLANCE (cont.)

Friday, 14 September 2018

8:00 – 9:00	<i>Registration</i>		B316
9:00 – 10:00	<i>Invited talk</i>	Chair: Serra	B319
	Title: ?		
	Speaker(s): Baldomá		
10:00 – 10:30	<i>Coffee break</i>		
10:30 – 11:30	<i>Invited talk</i>	Chair: Drmota	B319
	Title: On some set theoretical aspects of the geometric continuum		
	Speaker: Fischer		
11:35 – 12:50	<i>Session</i>	Chair: Radojičić	B319
	Applications of Stochastic Analysis in Quantitative Finance I		
	<i>Session</i>	Chair: Nedela	B202
	Graph Theory and Combinatorics IV		
	<i>Session</i>	Chair: Trlifaj	C202
	Categorical Methods in Algebra and Topology III		
	<i>Session</i>	Chair: Oberhuber	B210
	Numerical Workshop IV		
13:00 – 15:00	<i>Lunch</i>		
15:00 – 16:15	<i>Session</i>	Chair: Vives	B319
	Applications of Stochastic Analysis in Quantitative Finance		
	<i>Session</i>	Chair: Lukotka	B319
	Graph Theory and Combinatorics V		
	<i>Session</i>	Chair: Casacuberta	C202
	Categorical Methods in Algebra and Topology IV		
16:15 – 16:45	<i>Coffee break</i>		
16:45 – 18:25	<i>Session</i>	Chair: Pospíšil	B319
	Applications of Stochastic Analysis in Quantitative Finance III		
	<i>Session</i>	Chair: Faber	B202
	Commutative Algebra and Algebraic Geometry V		

SESSIONS

Algebraic and Topological Graph Theory I

Chair: Jajcay

- 11:35 – 12:00 Potočník: *Fixicity of graphs*
 12:00 – 12:25 Nedela: *Representation of the automorphism group of a graph in the automorphism group of its Jacobian*

Algebraic and Topological Graph Theory II

Chair: Malnic

- 15:00 – 15:25 Gyürki: *Symmetry versus regularity through the scope of the Paulus-Rozenfeld-Thompson strongly regular graph on 26 vertices*
 15:25 – 15:50 Mačaj: *On packings of disjoint copies of the Hoffman-Singleton graph into K_{50}*
 15:50 – 16:15 Jajcay: *Regular and orientably-regular maps with quasiprimitive automorphism groups on vertices*

Applications of Stochastic Analysis in Quantitative Finance I

Chair: Radojičić

- 11:35 – 12:00 Merino: *Option price decomposition in spot-dependent volatility models and some applications*
 12:00 – 12:25 Vives: *Exact second order decomposition of a plain vanilla call under the Heston model*
 12:25 – 12:50 Pospíšil: *Fitting NURBS to financial curves*

Applications of Stochastic Analysis in Quantitative Finance II

Chair: Vives

- 15:00 – 15:25 Radojičić: *On a binomial limit order book model with geometrically distributed order placements*
 15:25 – 15:50 Rheinländer: *Portfolio optimization for a large trader*
 15:50 – 16:15 Navrátil: *Construction and properties of maximum volatility portfolio*

Applications of Stochastic Analysis in Quantitative Finance III

Chair: Pospíšil

- 16:45 – 17:10 Szücz: *Valuation of life annuities paid out from the old-age pension scheme in Slovakia*

Categorical Methods in Algebra and Topology I

Chair: Herbera

- 11:35 – 12:00 Cantier: *Introducing the Cu_1 semigroup*
 12:00 – 12:25 Claramunt: *The algebra of the lamplighter and the Atiyah Problem*
 12:25 – 12:50 Šťovíček: *Flat epimorphisms of commutative noetherian rings*

Categorical Methods in Algebra and Topology II

Chair: Šťovíček

- 15:00 – 15:25 Šaroch: *Towards disproving the Pure Semisimplicity Conjecture*
 15:25 – 15:50 Trlifaj: *Faith's problem on R -projectivity is not decidable in ZFC*
 15:50 – 16:15 Zarzuela: *A Koszul complex over skew polynomial rings*

Categorical Methods in Algebra and Topology III

Chair: Trlifaj

- 11:35 – 12:00 Carlier: *Hereditary species as decomposition spaces*
 12:00 – 12:25 Cebrian: *A simplicial groupoid for plethysm*
 12:25 – 12:50 Hrbek: *Definable coaisles over rings of weak global dimension at most one*

Categorical Methods in Algebra and Topology IV

Chair: Casacuberta

- 15:00 – 15:25 Slávik: *Purity in categories of sheaves*
 15:25 – 15:50 Garcia: *Cellularity in topology and in algebraic geometry*
 15:50 – 16:15 Positselski: *Flat ring epimorphisms of countable type*

SESSIONS (cont.)

Commutative Algebra and Algebraic Geometry I

Chair: Boix

- 15:00 – 15:25 Chalmovianská: *Computing local intersection multiplicity of plane curves via blow up*
 15:25 – 15:50 Dachs-Cadefau:
 15:50 – 16:15 Zarzuela: *Generators of Frobenius and Cartier algebras of Stanley-Reisner rings*

Commutative Algebra and Algebraic Geometry II

Chair: Chalmovianska

- 15:00 – 15:25 Balko: *Covering lattice points by subspaces and counting point-hyperplane incidences*
 15:25 – 15:50 Korbaš: *An explicit formula for the cup-length of $SO(n)$*
 15:50 – 16:15 Macko: *On the cardinality of the manifold set*

Commutative Algebra and Algebraic Geometry III

Chair: Herbera

- 16:45 – 17:10 Miró-Roig: *Togliatti systems and the weak Lefschetz property*
 17:10 – 17:35 Pons-Llopis: *Ulrich bundles on projective three-dimensional scrolls*

Commutative Algebra and Algebraic Geometry IV

Chair: Zarzuela

- 16:45 – 17:10 Melánová: *Resolution of singular plane curves via geometric invariants*
 17:10 – 17:35 Cid-Ruiz: *Rational maps and the saturated special fiber ring*
 17:35 – 18:00 Herbera: *Big pure-projective modules over local noetherian rings*

Commutative Algebra and Algebraic Geometry V

Chair: Faber

- 16:45 – 17:10 Andritsch: *A note on friezes of type Λ_p*
 17:10 – 17:35 Baur: *Cohen-Macaulay modules from Grassmannians*
 17:35 – 18:00 Garcia-Elsener: *Acyclic cluster algebras and factorization theory*

Workshop on Functional Analysis I

Chair: Kopecká

- 11:35 – 12:00 Fabian: *On Nash-Moser-Ekeland inverse mapping theorem*
 12:00 – 12:25 Dymond: *Differentiability of typical Lipschitz functions*
 12:25 – 12:50 Buchta: *Random polytopes and the inclusion-exclusion principle*

Workshop on Functional Analysis II

Chair: Dymond

- 15:00 – 15:25 Besau: *Weighted floating bodies of polytopes*
 15:25 – 15:50 Mordhorst: *Floating and illumination bodies for polytopes*
 15:50 – 16:15 Prochno: *The volume of intersections of unit balls in classical matrix ensembles*

Workshop on Functional Analysis III

Chair: Ludwig

- 11:35 – 12:00 Rataj: *On multivariate variances of sets with finite perimeter*
 12:00 – 12:25 Kreuml: *Fractional Sobolev norms and BV functions on manifold*
 12:25 – 12:50 Kniefaricz: *Sharp Sobolev inequalities via projection averages*

Workshop on Functional Analysis IV

Chair: Schuster

- 15:00 – 15:25 Dafnis: *Gaussian moments of log-concave functions*
 15:25 – 15:50 Bargetz: *Generic properties of nonexpansive mappings on weakly hyperbolic spaces*
 15:50 – 16:15 Kopecká: *Johnson graphs and projections*

SESSIONS (cont.)

Graph Theory and Combinatorics I

Chair: Drmota

- 11:35 – 12:00 Ceballos: *The steep-bounce conjecture*
 12:00 – 12:25 Vena: *A topological characterization of Gauss codes*
 12:25 – 12:50 Panholzer: *Combinatorial analysis of several growth models for series-parallel networks*

Graph Theory and Combinatorics II

Chair: Kratochvíl

- 15:00 – 15:25 Zeiner: *On linear-time data dissemination in dynamic trees*
 15:25 – 15:50 Pillwein: *Positivity of recurrent sequences and special functions*
 15:50 – 16:15 Hliněný: *Recent hardness results in crossing numbers*

Graph Theory and Combinatorics III

Chair: Škoviera

- 16:45 – 17:10 Requille: *Asymptotic enumeration of labelled 4-regular planar graphs*
 17:10 – 17:35 Delcourt: *Rapid mixing of Glauber dynamics for colorings*
 17:35 – 18:00 Abiad: *Graph switching, 2-ranks, and graphical Hadamard matrices*

Graph Theory and Combinatorics IV

Chair: Nedela

- 11:35 – 12:00 Škoviera: *Cyclic connectivity, edge-elimination, and the twisted Isaacs graphs*
 12:00 – 12:25 Lukotka: *Short cycle covers of graphs with minimal degree three*
 12:25 – 12:50 Karabáš: *Six-cycles and perfect matchings in snarks*

Graph Theory and Combinatorics V

Chair: Lukotka

- 15:00 – 15:25 Mazák: *Structure of small snarks*
 15:25 – 15:50 Padrol: *Counting polytopes*
 15:50 – 16:15 Pavlíková: *On the inverse of a cycle*

Numerical Workshop I

Chair: Remešíková

- 11:35 – 12:00 Mercier: *Particles settling in a Bingham fluid and total variation minimization*
 12:00 – 12:25 Iglesias: *On convergence of solutions of total variation regularized linear inverse problems*
 12:25 – 12:50 Tibenský: *Discrete duality finite volume scheme for the regularised Heston model*

Numerical Workshop II

Chair: Tibenský

- 15:00 – 15:25 Remešíková: *A Lagrangian algorithm for finding approximate geodesics on polygonal surfaces*
 15:25 – 15:50 Oberhuber: *TNL: Framework for numerical computing and modern parallel architectures*
 15:50 – 16:15 Stehlíková: *Dynamic correlation in a convergence model of interest rates*

Numerical Workshop III

Chair: Tibenský

- 16:45 – 17:10 Polycarp: *Distance map registration*
 17:10 – 17:35 Ambroz: *Topological changes of curves in the forest fire propagation modelling*
 17:35 – 18:00 Kollár: *Filtering models based on surface Laplacian and geodesic mean curvature flow for data on closed surfaces*
 18:00 – 18:25 Kósa: *Level set method for 3D point cloud surface reconstruction*

Numerical Workshop IV

Chair: Oberhuber

- 11:35 – 12:00 Minarechová: *On the solution of the oblique derivative boundary-value problem in geodesy using various numerical concepts*
 12:00 – 12:25 Stašová:
 12:25 – 12:50 Balažovjeh: *The new analytic solutions for eikonal and level set equations*

SESSIONS (cont.)

TIFMOFUS I

Chair: Teofanov

- 11:35 – 12:00 Balázs: *Applications of localized frames to Galerkin-like representations of operators*
 12:00 – 12:25 Abreu: *Weyl-Heisenberg and polyanalytic ensembles*
 12:25 – 12:50 Feichtinger: *A Banach space version for the kernel theorem describing linear operators*

TIFMOFUS II

Chair: Feichtinger

- 15:00 – 15:25 de Gosson: *The canonical group of transformations of a Weyl-Heisenberg frame*
 15:25 – 15:50 Skálová: *Inverse images under gradient mapping*
 15:50 – 16:15 Teofanov: *The Grossmann-Royer transform and localization operators*

TIFMOFUS III

Chair: Balázs

- 16:45 – 17:10 Marčoková: *On Hermite orthogonal polynomials and Hermite functions*
 17:10 – 17:35 Hutník: *Non-additive measure and integral meet time-frequency analysis*
 17:35 – 18:00 Jakšić: *Weyl calculus of pseudo-differential operators on the space of tempered distributions*

Workshop on Uncertainty Modelling I

Chair: Kalina

- 11:35 – 12:00 Šipošová: *Continuous functions with given super-additive and sub-additive transformations*
 12:00 – 12:25 Šeliga: *A note on super-additive and sub-additive transformations*
 12:25 – 12:50 Ždímalová: *Mathematical modelling of bio-medical data*

Workshop on Uncertainty Modelling II

Chair: Omladič

- 11:35 – 12:00 Mojškerc: *Assymetric linkages: $\maxmin$ vs. reflected $\maxmin$ copulas*
 12:00 – 12:25 Škulj: *Modelling shocks with imprecise copula*
 12:25 – 12:50 Kalina: *Integral transformation of aggregation functions and Darsow product*

Workshop on Uncertainty Modelling III

Chair: Hutník

- 15:00 – 15:25 Halčinová: *On semicopula-based integrals*
 15:25 – 15:50 Borzová: *Size-based super level measures*