Section 02: Algebra

Invited Lectures

Friday, 21 August — MA 005

16:15 – 17:00 **William M. Kantor,** University of Oregon, Eugene, USA
Simple Groups in Computational Group Theory *(I: p.41)*
Chair: Charles C. Sims

17:15 – 18:00 **Aleksandr Pukhlikov,** Institute for Systems Analysis, Moscow, Russia
Birational automorphisms of algebraic varieties *(I: p.42)*
Chair: Victor Vadimovich Batyrev

Saturday, 22 August — MA 005

16:15 – 17:00 **Eric Mark Friedlander,** Northwestern University, Evanston, USA
Geometry of Infinitesimal Group Schemes *(I: p.36)*
Chair: Uwe Jannsen

17:15 – 18:00 **Gunter Malle,** Universität Heidelberg, Heidelberg, Germany
Spetses *(I: p.41)*
Chair: John S. Wilson

Monday, 24 August — MA 005

14:00 – 14:45 **Sergei Ivanov,** University of Illinois, Urbana, USA
On the Burnside problem for groups of even exponent *(I: p.38)*
Chair: Otto H. Kegel

15:00 – 15:45 **Idun Reiten,** Norwegian University of Science and Technology, Trondheim, Norway
Tilting Theory and Quasitilted algebras *(I: p.43)*
Chair: Claus Michael Ringel

Tuesday, 25 August — MA 005

16:15 – 17:00 **Aner Shalev,** The Hebrew University, Jerusalem, Israel
Simple groups, permutation groups, and probability *(I: p.45)*
Chair: Bernhard H. Neumann

17:15 – 18:00 **Jeremy C. Rickard,** University of Bristol, Bristol, England
The abelian defect group conjecture *(I: p.45)*
Chair: Dieter Happel

Short Communications and Poster Sessions

Short Communications — Wednesday, 19 August

Rings — **MA 042**
Chair: Toma Albu

14:00 – 14:15	**Hyoung J. Ko,** Yonsei University, Seoul, Korea, Republic of *Some complete intersection and their minimal prime ideals*	*(p.20)*
14:15 – 14:30	**Takasi Nagahara,** Okayama Univ., Okayama-Ken, Japan *Classification of rings satisfying some generalized Herstein's condition*	*(p.24)*
14:30 – 14:45	**Sylvia Chin-Pi Lu,** University of Colorado, Denver, Colorado, USA *The Zariski topology on the prime spectrum of a module*	*(p.22)*

Algebras I — **MA 042**
Chair: Alexandre V. Mikhalev

15:00 – 15:15	**Askar Dzhumadil'daev,** Institute of Mathematics, Almaty, Kazakhstan *Cohomologies of right-symmetric algebras and Novikov algebras*	*(p.17)*
15:15 – 15:30	**Ekaterina A. Vasilieva,** Moscow State University, Moscow, Russia *Involutive Bases of Free Algebras*	*(p.31)*
15:30 – 15:45	**Alexander A Totok,** Moscow State University, Moscow, Russia *Actions of Hopf algebras on noncommutative algebras*	

Semigroups — **MA 311**
Chair: Hans-Jürgen Vogel

16:15 – 16:30	**Olga Macedonska,** Silesian Technical University, Gliwice, Poland *On semigroup identities in groups*	*(p.22)*
16:30 – 16:45	**Boris M. Schein,** University of Arkansas, Fayetteville, AR, USA *A new construction for free inverse semigroups*	*(p.28)*
16:45 – 17:00	**Vučić Dašić,** Univerzitet Crne Gore, Podgorica, Yugoslavia *Hyperrings and hypernear-rings of the multivalied mappings*	*(p.16)*

Topological Algebra — **MA 042**
Chair: Karl-Heinrich Hofmann

16:15 – 16:30	**Nouzha El Yacoubi,** Dept. Maths & Info. Faculty of Sciences, Rabat, Morocco *J-Generalized topological divisors of zero in topological Jordan algebras*	*(p.18)*
16:30 – 16:45	**Rumara Jewett,** SUNY-Albany, Dept. of Mathematics, Albany, NY, USA *Almost Convexity of a Certain Nilpotent Group*	*(p.19)*
16:45 – 17:00	**Mary Nailevna Sabitova,** Kazan State University, Kazan, Russia *The automorphisms of affine spaces and polynomial manifolds*	*(p.27)*

Groups I — **MA 311**
Chair: Wujie Shi

17:15 – 17:30	**Herbert Abels,** Fakultät für Mathematik, Universität Bielefeld, Bielefeld, Germany *Reductive groups as metric spaces*	*(p.12)*
17:30 – 17:45	**Oleg I. Tavgen,** Belorussian State University, Minsk, Republic of Belarus *The free product of cyclic groups in the group* $\mathrm{PSL}_2(\mathbb{C})$	*(p.30)*
17:45 – 18:00	**Matthias Trittler,** Universität Ulm, Ulm, Germany *Normalteiler symplektischer Gruppen*	*(p.30)*

Semirings/groups and Algebras — **MA 042**
Chair: Boris M. Schein

17:15 – 17:30	**Irena I. Artamonova,** Moscow State University, Moscow, Russia *We consider semirings with* $1 \neq 0$	*(p.12)*
17:30 – 17:45	**Godwin Ekhaguere,** Association of African Universities, Accra, Ghana *Algebraic representation theory of partial algebras*	*(p.17)*
17:45 – 18:00	**Miroslav, D. Ćirić,** University of Niš, Niš, Yugoslavia *Atomic decompositions of algebras and structures*	

Short Communications — Thursday, 20 August

Noetherian Rings — MA 311
Chair: Kurt Rosenbaum

16:15 – 16:30	**Vijay Kodiyalam,** The Institute of Mathematical Sciences, Chennai, India *Asymptotic behaviour of Castelnuovo-Mumford regularity*	*(p.20)*
16:30 – 16:45	**Syed Tariq Rizvi,** The Ohio State University, Lima, USA *On noetherian and artinian rings*	*(p.26)*
16:45 – 17:00	**Sylvia M. Wiegand,** University of Nebraska, Lincoln, USA *Building Noetherian domains using completions*	*(p.31)*

Rings and Modules I — MA 311
Chair: Sylvia M. Wiegand

17:15 – 17:30	**Toma Albu,** University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, USA *Global Krull dimension and global dual Krull dimension of rings*	*(p.12)*
17:30 – 17:45	**Jilyana Cazaran,** University of Tasmania, Hobart, Australia *Sufficient conditions for finite commutative rings to be principal ideal rings and an application to error-correcting codes*	*(p.14)*
17:45 – 18:00	**Reinhard Börger,** FernUniversität Hagen, Hagen, Germany *Infinitary Linear Combinations in Cotorsion Modules*	*(p.14)*

Short Communications — Friday, 21 August

Groups II — MA 311
Chair: Mikhail H. Klin

14:00 – 14:15	**Hubert Kiechle,** Zentrum Mathematik, TU München, München, Germany *Frobenius groups with many involutions*	*(p.20)*
14:15 – 14:30	**Anatolii S. Kondratiev,** Institute of Mathematics and Mechanics, Ekaterinburg, Russia *Finite linear groups of small degree*	*(p.20)*
14:30 – 14:45	**Wujie Shi,** Southwest-China Normal University, Chongqing, China, Peoples Republic of *A new classification of groups*	*(p.28)*

Groups III — MA 311
Chair: Andrew J. Woldar

15:00 – 15:15	**Vahagn H. Mikaelian,** Math. Institut, Uni. Würzburg, Würzburg, Germany *Embeddings of countable groups into 2-generator groups with additional properties*	*(p.31)*
15:15 – 15:30	**Igor Ya. Subbotin,** National University, Inglewood, CA, USA *On groups with many periodic factor-groups*	*(p.30)*
15:30 – 15:45	**Leonid A. Kurdachenko,** University of Dnepropetrovsk, Dnepropetrovsk, Ukraine *On some infinite dimensional linear groups*	*(p.21)*

Short Communications — Saturday, 22 August

Representations of Groups — MA 311
Chair: Alexander S. Kleshchev

14:00 – 14:15	**Mohammad Reza Darafsheh,** University of Tehran, Tehran, Iran *The character table of the group $GL_2(q)$ when extended by a certain group of order two*	*(p.15)*
14:15 – 14:30	**Anna Helversen-Pasotto,** Laboratoire "Jean-Alexandre Dieudonné", Nice, France *Représentations de $GL(n, F_q)$ et sommes de Gauss*	*(p.18)*
14:30 – 14:45	**Alexei Davydov,** Moscow State University, Department of Math., Moscow, Russia *Drinfel'd theory and representations of finite groups*	*(p.16)*

Commutative Rings	**MA 311**
Chair: Peter Draexler	
15:00 – 15:15 **Alexander Levin,** The Catholic Univ. of America, Washington, D.C., USA *Multivariable dimension polynomials and their invariants*	*(p.21)*
15:15 – 15:30 **Venkat Murali,** Rhodes University, Grahamstown, South Africa *On Krull Intersection Theorem of Fuzzy Ideals*	*(p.24)*
15:30 – 15:45 **Cornelia G. Naude,** University of South Africa, Pretoria, South Africa *Asymptotic behaviour of attached primes*	*(p.25)*

Short Communications — Monday, 24 August

Algebras II	**MA 311**
Chair: M. Susan Montgomery	
16:15 – 16:30 **Mihai I. Cipu,** Institute of Mathematics, Bucharest, Romania *Multiplicities and pure resolutions for Gorenstein codimension four algebras*	*(p.15)*
16:30 – 16:45 **Michael Nüsken,** Universität Konstanz, Konstanz, Germany *Unique Tensor Factorization of Algebras*	*(p.26)*
16:45 – 17:00 **Andrej A. Zolotykh,** Moscow State University, Moscow, Russia *Standard bases for ideals of free algebras over commutative rings*	*(p.32)*

Hopf Algebras	**MA 311**
Chair: Alexander A. Mikhalev	
17:15 – 17:30 **Sorin Dascalescu,** University of Bucharest, Bucharest, Romania *Pointed Hopf algebras by Ore extensions and classification results*	*(p.16)*
17:30 – 17:45 **M. Susan Montgomery,** University of Southern California, Los Angeles, CA, USA *Prime Ideals in Hopf Galois Extensions*	*(p.24)*
17:45 – 18:00 **Peter Schauenburg,** Universität München, München, Germany *Hopf algebras with a weak projection*	*(p.27)*

Short Communications — Tuesday, 25 August

Rings and Modules II	**MA 311**
Chair: Christine Bessenrodt	
14:00 – 14:15 **Sergey P. Strunkov,** Dept. of Crptol. and Discr. Math., Moscow, Russia *On p-blocks of minimal defect in a finite group and Gelfand pairs*	*(p.29)*
14:15 – 14:30 **Johannes H. Meyer,** University of the Orange Free State, Bloemfontein, South Africa *Forcing Linearity Numbers*	*(p.23)*
14:30 – 14:45 **Hossein Zand,** The Open University, Milton Keynes, England *Duality in radicals of associative rings*	*(p.32)*

Miscellaneous	**MA 311**
Chair: Corinna Wiedorn	
15:00 – 15:15 **Martin Goldstern,** Technische Universität Wien, Wien, Austria *Interpolation of monotone functions in lattices*	*(p.18)*
15:15 – 15:30 **Ming-Chang Kang,** National Taiwan University, Taipei, China, Taiwan *Rationality of Some Projective Linear Actions*	*(p.19)*
15:30 – 15:45 **Vyacheslav A. Artamonov,** Moscow State University, Moscow, Russia *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)*

Short Communications — Wednesday, 26 August

Algebras III — **MA 311**
Chair: Shavkat A. Ayupov

15:00 – 15:15	**Bernhard Drabant,** Department of Applied Mathematics, Cambridge, Great Britain *Cross Product Bialgebras*	*(p.17)*
15:15 – 15:30	**Alexander A. Mikhalev,** Moscow State University, Moscow, Russia *Free Leibniz algebras*	*(p.23)*
15:30 – 15:45	**Daouda Sangare,** Université de Caen, Hérouville Saint Clair, France *Hilbert quasi-polynomial functions and generalized analytic spread*	*(p.27)*

Categories — **MA 042**
Chair: Reinhard Börger

15:00 – 15:15	**Hvedri Inassaridze,** A. Razmadze Mathematical Institute, Tbilisi, Georgia *Karoubi's Conjecture for polynomial extensions of stable C*-algebras*	*(p.19)*
15:15 – 15:30	**Fred E.J. Linton,** Wesleyan University, New Haven, CT, USA *Banach Spaces Monadic over Free Pointed Cones*	*(p.22)*
15:30 – 15:45	**Siaka Kante Bamba,** Université de Cocody, Abidjan, Ivory Coast *On quadratic modules*	*(p.13)*

Linear Algebra and Quadratic Forms — **MA 311**
Chair: Stefan Heiss

16:15 – 16:30	**Herbert Möller,** University of Münster, Münster, Germany *New central algorithms in linear algebra*	*(p.23)*
16:30 – 16:45	**Dilip N. Sheth,** Sir Parashurambhau College, Pune, India *Completion of a unimodular vector to an invertible matrix*	*(p.28)*
16:45 – 17:00	**Ulf Rehmann,** Universität Bielefeld, Bielefeld, Germany *Higher anisotropic kernels of quadratic forms*	*(p.26)*

Groups IV — **MA 311**
Chair: Bettina Wilkens

17:15 – 17:30	**Alexei N. Krasilnikov,** Moscow Pedagogical State University, Moscow, Russia *Identities in metanilpotent groups*	*(p.21)*
17:30 – 17:45	**Ernest B. Vinberg,** Universität Bielefeld, Bielefeld, Germany *On a generalization of Coxeter groups*	
17:45 – 18:00	**Munibur Rahman Chowdhury,** University of Dhaka, Dhaka, Bangladesh *A commutativity theorem for groups*	*(p.15)*

Poster Session — Thursday, 20 August

14:00 – 15:45 — **MA 144**

Shavkat A. Ayupov, Institute of Mathematics, Tashkent, Republik of Uzbekistan
Nilpotent Leibniz algebras of low dimension *(p.13)*

Valerii Vaclavovich Benyash-Krivetz, Institute of Mathematics, Minsk, Belarus
On decomposing some finitely generated groups into amalgamated free products *(p.13)*

Matyas Domokos, Hungarian Academy of Sciences, Budapest, Hungary
Determinantal ideals of certain subspace arrangements *(p.16)*

Kiyomitsu Horiuchi, Konan University, Kobe, Japan
An expansion of lattice *(p.19)*

Andrei Marcus, Babeş-Bolyai, Cluj-Napoca, Romania
Derived equivalences and Dade's conjectures *(p.22)*

Shigeki Matsumoto, Konan University, Kobe, Japan
Solutions of Sylvester Equations $AX-XB=C$ whose coefficients matrices A and B may have common eigenvalues *(p.23)*

Marek Niezgoda, Institute of Applied Mathematics, Agric. Univ. of Lublin, Lublin, Poland
An unified approach to some majorization inequalities *(p.25)*