

**International Conference
“Trends in Combinatorial Ring Theory”**

Scientific Programme

All times are given in local time GMT + 3

Monday, September 20

Chair: Plamen Koshlukov

13:30 - 13:50 *OPENING CEREMONY*

14:00 - 14:40 **Yuri Bahturin**
Delta sets and polynomial identities in pointed Hopf algebras

14:50 - 15:30 **Claudio Procesi**
A note on the Formanek Weingarten function

15:30 - 16:00 *COFFEE BREAK*

Chair: Mikhail Zaicev

16:00 - 16:40 **Askar Dzhumadil'daev**
Associative-admissible operad

16:50 - 17:30 **Luchezar Avramov**
Quasi-polynomial growth of minimal free resolutions

17:40 - 18:20 **Tatiana Gateva-Ivanova**
Algebras defined by Lyndon words and Artin-Schelter regularity

18:20 - 18:40 *PAUSE*

Chair: Ivan Chipchakov

18:40 - 19:05 **Thiago Castilho de Mello**
The commutator-degree of a polynomial and images of multilinear polynomials

- 19:10 - 19:35** **Vladimir Gerdjikov**
Recursion operators and hierarchies of NLEE equations related to Kac-Moody algebras
- 19:40 - 20:05** **Artem Lopatin**
Identities for a parametric Weyl algebra over a ring
- 20:15 - 20:55** **Efim Zelmanov**
Poisson brackets and related (super) algebras

Tuesday, September 21

Chair: **Hristo Iliev**

- 10:00 - 10:25** **Francesca Saviella Benanti**
On the asymptotics for \ast -graded Capelli identities
- 10:30 - 10:55** **Maya Stoyanova**
Orthogonal arrays and their distance distributions
- 11:00 - 11:25** **Fabrizio Martino**
Central polynomials and exponential growth of the codimensions
- 11:25 - 11:40** *PAUSE*
- 11:40 - 12:05** **Tsetska Rashkova**
Identities generated by standard polynomials for some matrix algebras with Grassmann entries
- 12:10 - 12:35** **Luisa Carini**
On the classification of multiplicity-free products of Schur functions
- 12:35 - 14:00** *LUNCH BREAK*
- Chair:** **Martin Kassabov**
- 14:00 - 14:40** **Eli Aljadeff**
On forms of G -graded simple algebras
- 14:50 - 15:30** **Matej Brešar**

Zero product determined algebras

15:30 - 16:00 *COFFEE BREAK*

Chair: **Yuri Bahturin**

16:00 - 16:40 **Antonio Giambruno**
Polynomial identities and trace codimensions

16:50 - 17:30 **Emil Horozov**
The general rank one matrix bispectral operators

17:40 - 18:20 **Mikhail Kotchetov**
Fine gradings on classical simple real Lie algebras

18:20 - 18:40 *PAUSE*

Chair: **Mikhail Kotchetov**

18:40 - 19:05 **Diogo Diniz**
On the Number of Gradings on Matrix Algebras

19:10 - 19:35 **Marin Genov**
Functions holomorphic over finite-dimensional commutative associative unital \mathbb{C} -algebras

19:40 - 20:05 **Pedro Fagundes**
On the Lvov-Kaplansky conjecture

Wednesday, September 22

Chair: **Jörg Koppitz**

10:00 - 10:25 **Stefka Bouyuklieva**
Decomposing Linear Codes over Finite Fields using Permutation Groups

10:30 - 10:55 **Şehmus Fındık**
Symmetric Polynomials in nonassociative algebras

- 11:00 - 11:25** **Boyan Kostadinov**
Stability of solitary waves for the generalized Klein-Gordon-Hartree equation
- 11:25 - 11:40** *PAUSE*
- 11:40 - 12:05** **Angela Valenti**
Metabelian varieties and left nilpotent varieties
- 12:10 - 12:35** **Lucio Centrone**
Nowicki's conjecture and about
- 12:35 - 14:00** *LUNCH BREAK*
- Chair:** **Silvia Boumova**
- 14:00 - 14:40** **Alexey Kanel-Belov**
Images of non-commutative polynomials evaluated on algebras
- 14:50 - 15:30** **Martin Kassabov**
Property T for some groups of tame automorphisms of $K[x, y, z]$
- 15:30 - 16:00** *COFFEE BREAK*
- Chair:** **Luchezar Avramov**
- 16:00 - 16:40** **Leonid Makar-Limanov**
Centralizers of rank one in the first Weyl algebra
- 16:50 - 17:30** **Daniela La Mattina**
Codimensions of Algebras with additional structures
- 17:40 - 18:20** **Jason Bell**
Specht's theorem, commutativity theorems, and decision procedures
- 18:20 - 18:40** *PAUSE*
- Chair:** **Tsetska Rashkova**
- 18:40 - 19:05** **Victor Petrogradsky**
Phoenix restricted Lie algebras

- 19:10 - 19:35** **Ivan Shestakov**
*Universal enveloping algebras of free Jordan algebras and
their associated graded algebras*
- 19:40 - 20:05** **Plamen Koev**
Accurate Eigenvectors of Symmetric Tridiagonal Matrices
- 20:10 - 20:35** **Dimitrinka Vladeva**
*Derivations and automorphisms of the endomorphism semiring
of an infinite chain*

Thursday, September 23

Chair: **Mátyás Domokos**

- 10:00 - 10:25** **Silvia Boumova**
Symmetric polynomials in three noncommuting variables
- 10:30 - 10:55** **Vincenzo Carmine Nardoza**
Differential polynomial identities of $UT_3(F)$
- 11:00 - 11:25** **Antonio Ioppolo**
Some PI-results on superalgebras with pseudoinvolution
- 11:25 - 11:40** *PAUSE*
- 11:40 - 12:05** **Jörg Koppitz**
*Presentations of Semigroups of Order-Preserving Partial Injections
on a Finite Set*
- 12:10 - 12:35** **Konstantin Delchev**
Biangular lines with maximal sum of the squared inner products
- 12:35 - 14:00** *LUNCH BREAK*

Chair: **Peter Danchev**

- 14:00 - 14:40** **Azniv Kasparian**
Finite Galois quotients of bi-elliptic surfaces

14:50 - 15:30 **Onofrio Di Vincenzo**
On superalgebras with superinvolution and their \ast -graded polynomial identities

15:30 - 16:00 *COFFEE BREAK*

Chair: **Emil Horozov**

16:00 - 16:40 **Tony Pantev**
Decomposition, anomalies, and quantum symmetries

16:50 - 17:30 **Louis Halle Rowen**
Finitely generated axial algebras

17:40 - 18:20 **Allan Berele**
Identities and Trace Identities of Verbally Prime Algebras

18:20 - 18:40 *PAUSE*

Chair: **Plamen Koev**

18:40 - 19:05 **Rumen Dangovski**
Algebraic structures in deep learning

19:10 - 19:35 **Felipe Yukihide Yasumura**
Determining graded-simple algebras by their graded polynomial identities

19:40 - 20:05 **Chavdar Lalov**
Around Tokuyama's formula

Friday, September 24

Chair: **Maya Stoyanova**

9:30 - 9:55 **Leonid Bokut**
Unpublished results of A.I. Shirshov

- 10:00 - 10:25** **Hristo Iliev**
Regular and superabundant components of the Hilbert scheme of smooth projective curves
- 10:30 - 10:55** **Athanasios Papistas**
Quotient groups of IA-automorphisms of free metabelian groups
- 10:55 - 11:10** *PAUSE*
- 11:10 - 11:35** **Elitza Hristova**
Hilbert series and invariant theory of symplectic and orthogonal groups
- 11:40 - 12:05** **Peter Dalakov**
Deformations of vector bundle-valued Higgs bundles and L_∞ -algebras
- 12:10 - 12:35** **Roberto La Scala**
Ciphers and Ordinary Difference Equations
- 12:35 - 14:00** *LUNCH BREAK*
- Chair:** **Azniv Kasparian**
- 14:00 - 14:40** **Mikhail Zaicev**
On existence of PI-exponent of codimension growth
- 14:50 - 15:30** **Mátyás Domokos**
Invariant theory in varieties of associative algebras
- 15:30 - 16:00** *COFFEE BREAK*
- Chair:** **Elitza Hristova**
- 16:00 - 16:40** **Jenő Szigeti**
Solving equations in the symmetric group
- 16:50 - 17:30** **Alberto Elduque**
Non-group gradings on simple Lie algebras
- 17:40 - 18:20** **Vesselin Drensky**
Locally nilpotent derivations of polynomial and other free algebras

18:20 - 18:40 *PAUSE*

Chair: **Peter Dalakov**

18:40 - 19:05 **Claudemir Fideles Bezerra Jr.**
The \mathbb{Z} -gradings on the Grassmann algebra and Arithmetic tools

19:10 - 19:35 **Irina Sviridova**
Hook theorem for various types of identities

19:40 - 20:05 **Michel Racine**
Derivation Algebras of Albert Algebras over a Ring