

P R O G R A M

13th SERBIAN MATHEMATICAL CONGRESS

13 SRPSKI MATEMATIČKI KONGRES

May 22-25, Vrnjačka Banja, Srbija

13th Serbian Mathematical Congress
Vrnjačka banja, May 22–25, 2014

Conference Schedule

Field 1: Set Theory, Topology, Logic, Algebra, Discrete Mathematics, Number Theory

May 22, 2014

- 15:00–17:00 **Plenary lectures**
- 17:00–17:30 Coffee break
- 17:30–19:20 Field 1 – Chairman: Carlos Martins da Fonseca
- 17:30–18:00 Francesco Belardo
Algebraic frustration of signed graphs
- 18:00–18:20 Tatjana Aleksić, Miroslav Petrović
Graphs with maximal spread in some classes of graphs
- 18:20–18:40 Bojana Borovicanin
On the signless Laplacian index of unicyclic and bicyclic graphs with perfect matching
- 18:40–19:00 Milica Andelić
Some spectral properties of the graphs with (k,t) -regular sets
- 19:00–19:20 Vojislav Petrović
Kings in hypertournaments

May 23, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Cofee break
- 11:30–13:30 Field 1 – Chairman: Ljubiša Kočinac
- 11:30–12:00 Alexander Vladimirovich Arhangelskii
Compactifications and remainders of Tychonoff spaces
- 12:00–12:30 Jan van Mill
Subsets of the reals that are countable dense homogeneous
- 12:30–13:00 Boaz Tsaban
Coherent omission of intervals: A combinatorial method for constructing special sets of reals and associated topological spaces
- 13:00–13:30 Giuseppe Di Maio
New convergences and topologies on (partial) function spaces
- 13:30–15:00 Lunch break
- 15:00–17:10 Field 1 – Chairman: Giuseppe Di Maio
- 15:00–15:30 Konstantin Kozlov
Equivariant topology: action's types, their extensions
- 15:30–16:00 Tatiana Nikolaevna Fomenko
On methods of discrete search for singularities of mappings of metric spaces
- 16:00–16:30 Vladimir Vershinin
Braids and Algebraic Topology
- 16:30–16:50 Milosav Marjanović
Hyperspaces of 0-dimensional spaces revisited
- 16:50–17:10 Dončo Dimovski, Sonja Chalamani
Topologies induced by $(3, 1, \rho)$ -metric and $(3, 2, \rho)$ -metrics
- 17:00–17:30 Cofee break
- 17:30–19:40 Field 1 – Chairman: Francesco Belardo
- 17:30–17:50 Dragan Stevanović
A Simple Estimate of the Largest Eigenvalue of Adjacency Matrix of a Graph
- 17:50–18:10 Aleksandra Kostić
Effective Homology computation using symbolic software
- 18:10–18:30 Marko Radovanović
A description of the cohomology of real flag manifolds
- 18:30–19:00 Žarko Mijajlović, Aleksandar Pejović
Definable subsets of finite structures and applications
- 19:00–19:20 Bojana Lasković, Miodrag Rašković, Nebojša Ikodinović
Some applications of nonstandard analysis to functional equations
- 19:20–19:40 İbrahim Şentürk, Tahsin Öner
On some set theoretical properties of logical consequence

May 24, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Coffee break
- 11:30–13:30 Field 1 – Chairman: Manfred Droste
- 11:30–11:50 Jelena Ignjatović, Miroslav Ćirić
Extreme solutions to inequalities and equations defined by residuated functions
- 11:50–12:10 Miroslav Ćirić, Jelena Ignjatović
Solving equations in residuated semigroups and quantales
- 12:10–12:30 Nada Damljanović, Miroslav Ćirić, Jelena Ignjatović
Residuation in algebras of relations and matrices
- 12:30–12:50 Arsham Borumand Saeid, S Zahiri, M Pourkhaton
Some results in nodal filters in residuated lattices
- 12:50–13:10 Marija Dodig
Matrix pencils completion problems
- 13:10–13:30 Carlos Martins da Fonseca
The Bruhat order for a class of binary matrices
- 13:30–15:00 Lunch break
- 15:00–17:00 Field 1 – Chairman: Aleksandar Lipkovski
- 15:00–15:20 Wenguang Zhai
On Tong's method and its applications
- 15:20–15:40 Aseem Mukund Bhagwat
Polygonal numbers and Fermat's Last Theorem
- 15:40–16:00 Gediminas Stepanauskas, Jonas Siaulyš
On the limit distributions for some sets of additive arithmetic functions
- 16:00–16:20 Romeo Meštrović
On Kurepa's determinants arising from Kurepa's left factorial hypothesis
- 16:20–16:40 Eugenijus Manstavicius, Vytautas Stepanauskas
On influence of probabilistic number theory to probabilistic combinatorics
- 16:40–17:00 Dragan Stankov
Roots of trinomials of bounded height
- 17:00–17:30 Coffee break
- 17:30–19:30 Field 1 – Chairman: Žarko Mijajlović
- 17:30–18:00 Nikita Shekutkovski
Intrinsic shape - the proximate approach
- 18:00–18:20 Nikita Shekutkovski, Aneta Velkoska
One Invariant of Intrinsic Shape
- 18:20–18:40 Predrag Krtolica, Predrag Stanimirović
An integer sequence derived by polygon triangulation
- 18:40–19:00 Milan Živanović, Aleksandar Lipkovski
On arithmetic operations on the set of pythagorean triples
- 19:00–19:20 Aleksandar Lipkovski, Samira Zeada
A note on multivariate polynomial division and Gröbner bases

May 25, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Cofee break
- 11:30–13:50 Field 1 – Chairman: Miodrag Rašković
- 11:30–11:50 Zoran Petrović
Simplicial complexes associated to commutative rings
- 11:50–12:10 Tanja Stojadinović
Combinatorial Hopf algebra of matroids
- 12:10–13:00 Maja Roslavcev
Koszul rings
- 13:00–13:50 Emil Ilić-Georgijević
On graded Ω -groups

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Conference Schedule

Field 2: Numerical Mathematics, Applied Mathematics

May 23, 2014

09:00–11:00 **Plenary lectures**

11:00–11:30 Coffee break

11:30–13:20 Field 2 – Chairman: Blagovest Sendov

11:30 - 12:05

Dimitrios Pappas

Image restoration methods based on least squares solutions

12:05 - 12:25

Ivan Stanimirovic

*Computation of Generalized Matrix Inverses via Full-rank LDL^{***} Decomposition*

12:25 - 12:45

Marko Petkovic

Hankel transform computation of different integer sequences

12:45 - 13:05

Vasilios N Katsikis

A new computational tool for option replication

13:05 - 13:25

Boban Marinkovic

A Motzkin-type theorem of the alternative in L_p spaces

13:30–15:00 Lunch break

15:00–16:55 Field 2 – Chairman: Marko Petković

15:00 - 15:35

Blagovest Sendov

Analogue of Gauss-Lucas theorem for complex polynomials

15:35 - 15:55

Marija P. Stanić, Tatjana V. Tomović

Multiple orthogonality in the space of trigonometric polynomials of semi-integer degree

15:55 - 16:15

Tatjana V. Tomović, Marija P. Stanić

Quadrature rules with an even number of multiple nodes and a maximal trigonometric degree of exactness

16:15 - 16:35

Nenad P. Cakic

q-analogues of multiparameter non-central Stirling numbers

16:35 - 16:55

Natasa Krejic

Inexact Restoration approach for minimization with inexact evaluation of the objective function

17:00–17:30 Cofee break

17:30–19:30 Field 2– Chairman: Vasilios N. Katsikis

17:30 - 17:50

Katica R. Stevanovic-Hedrih

Petrovic's Elements of mathematical phenomenology AND Phenomenological Mappings in Science

17:50 - 18:10

Lidija Rančić and Miodrag Petković

A new simultaneous method with corrections for approximating zeros of analytic functions

18:10 - 18:30

B. Malešević, M. Petrović, I. Jovović, B. Banjac

Plane curves with foci and directrices in the facility location problems

18:30 - 18:50

Branko Malešević, Tatjana Lutovac, Milica Makragić, Bojan Banjac, Marija Nenezić

One method for proving a class of trigonometric inequalities

18:50 - 19:25

Tatyana Micic

Modelling uncertainties in structural design and assessment

19:25 - 19:45

Tatyana Micic, Miomir Stankovic, Dragoslav Stojic, Nikola Velimirovic

Stochastic process representation for time-dependent timber-concrete composite beam deterioration

May 24, 2014

09:00-11:00 **Plenary lectures**

11:00-11:30 Cofee break

11:30-13:25 Field 2- Chairman: Branko Malešević

11:30 - 12:05

Bernd Steinbach, Christian Posthoff

Boolean Differential Equations – Solution and Applications

12:05 - 12:25

Sandra Hodzic

About a nonlocal BVP for Poisson's equation

12:25 - 12:45

Zorica Dusan Milovanovic

Numerical approximation of 2D elliptic transmission problem in disjoint domains

12:45 - 13:05

Bosko Jovanovic

Some Boundary Value Problems for Fractional in Time Diffusion-Wave Equation and their Numerical Solution

13:05 - 13:25

Aleksandra Delić

A Finite Difference Scheme for a Fractional Super-diffusion Equation with Concentrated Capacity

13:30-15:00 Lunch break

15:00-16:15 Field 2- Chairman: Bosko Jovanovic

15:00 - 15:35

Dimitrios Pappas

Outer Inverses in constrained quadratic optimization

15:35 - 15:55

Snezana Djordjevic

New Hybrid Conjugate Gradient Method for Unconstrained Optimization

15:55 - 16:15

Vladimir Janković

A new proof of the necessary conditions of the first order for the general problem of the calculus of variations

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Conference Schedule

**Field 3: Real and Functional Analysis, Differential Equations, Complex Analysis,
Probability and Statistics**

May 22, 2014

15:00–17:00 **Plenary lectures**

17:00–17:30 Coffee break

17:00–19:30

Field 3a – Chairman: Arpad Takači

17.30-17.50

Julka Knezevic-Miljanovic

Some asymptotic properties of second order differential equation

17.50-18.10

Jelena Manojlovic

Asymptotic analysis of positive solutions of second-order Emden-Fowler type differentialequations in the framework of regular variation

18.10-18.30

Octavio Paulo Vera Villagran

On asymptotic behaviour for a coupled system modeled by transverse vibrations of an inhomogeneous beam with a thermal effect

18.30-18.50

Jelena Milošević

Intermediate solutions of fourth order quasilinear differential equations in the framework of regular variation

18.50-19.10

Mohammad Mujalli Almahameed

Maximum Principles for Some Higher Order Ordinary Differential Equations

19.10-19.30

Marija Mikic, Julka Knezevic-Miljanovic

Some asymptotic properties of second order differential equation

17:00–19:30

Field 3b – Chairman: Vesna Jevremovic

17.30-18.00

Tibor Pogany

Whittaker sampling

18.00 -18.30

Gradimir Milovanovic, Biljana Popovic, Vladica Stojanovic

An Application of the ECF Method and Numerical Integration in Estimation of the Stochastic Volatility Models

18.30-18.50

Aleksandar S. Nastić, Miroslav M. Ristić

On outperforming binomial thinning operator using geometric counting sequence in some real-life situations

18.50-19.10

Božidar V Popović, Hassan Bakouch

New first-order autoregressive model with applications

19.10-19.30

Slobodanka Jankovic

Three unit system with repair and preventive maintenance

19.30-19.50

Predrag Popović, Aleksandar Nastić, Miroslav Ristić

Bivariate autoregressive models in time series of counts forecasting

May 23, 2014

09:00–11:00 **Plenary lectures**

11:00–11:30 Cofee break

11:30–13:30 Field 3 – Chairman: Robin Harte

11.30-11.50

Dragan Djordjevic

On operators on Hilbert C^ -modules*

11.50-12.10

Ivana Djolović

Characterization of Some Classes of Operators

12.10-12.30

Risto Malcheski, Katerina Anevska

Characteization of 2-inner product by strictly convex 2-norm of modul c

12.30-12.50

Milica Z. Kolundžija

Outer generalized inverses with prescribed idempotents of block matrices in Banach algebras

12.50-13.10

Ümit Totur, Muhammet Ali Okur

Some classical Tauberian theorems for the weighted mean methods of integrals

13.10-13.30

Katarina Petković

Matrix domain of the triangle in L_p , $1 \leq p \leq \infty$

13:30–15:00 Lunch break

15:00–17:10 **Field 3a** – Chairman: Ivana Djolović

15.00-15.30

Slavisa Đorđević

Spectrum of an bounded linear operator and invariant subspaces

15.20-15.50

Dragana Cvetković-Ilić

Generalized inverses, projectors, completions of operator matrices

15.50-16.10

Árpád Baricz

Inequalities for the generalized inverse trigonometric and hyperbolic functions

16.10-16.30

Snezana Zivkovic-Zlatanovic, Milos Cvetkovic, Dragan Djordjevic

On closed upper and lower semi-Browder operators

16.30-16.50

Dijana Mosić

Generalized Drazin inverse of block matrices in a Banach algebra

16.50-17.10

Jovana Nikolov, Dragana Cvetković-Ilić

Pseudoinverses and reverse order law for matrices and operators

17:10–17:30 Cofee break

17:30–19:30 **Field 3a** – Chairman: Slaviša Đorđević

17.30-17.50

Nebojša Č. Dinčić, Dragan S. Djordjević

Recent results on reverse order law

17.50-18.10

Marko Miladinović, Predrag Stanimirović

Gradient methods for computing the least-square solutions

18.10-18.30

Jelena Višnjić, Dragana Cvetković-Ilić

Additive properties of the Drazin inverse for block matrix and its representations

18.30-18.50

Ivana Radojević

Quasihyponormal, EP and J-EP Matrices in Indefinite Inner Product Spaces

18.50-19.10

Shahram Rezapour

Endpoints of beta-shrinking beta-convergent multifunctions

19.10-19.30

Yilmaz Erdem, İbrahim Çanak

Some Tauberian Theorems For The Product Method Of Abel And Cesaro Summability to Convergence

15:00-17:00 **Field 3b** – Chairman: Aleksandar Ivić

15.00-15.20

Arindam Sarkar

On a Result of Uniqueness of Meromorphic Functions Sharing Two Sets with Less Cardinality

15.20 -15.50

Aram Vladimirovich Arutyunov

Covering mappings and coincidence points

15.50 -16.10

Daniel Ciuiu

PERT method with Monte Carlo Simulation, and the Most Probable Critical Path

16.10-16.30

Abdellah Qannari, Gerard Brunet, Mohamed Ibazizen

Knowledge-based Recognition of Objects in Aerial Images

16.30-16.50

Abdellah Qannari, Gerard Brunet, Mohamed Ibazizen

Knowledge-based Recognition of Objects in Aerial Images

17:00-17:30 *Coffee break*

17:30-19:30 **Field 3b** – Chairman: Tibor Pogany

17.30-17.50

Vesna Jevremovic, Kristina Veljkovic, Halima Elfaghihe

Quality control - history and recent development

17.50-18.10

Miljana Jovanovic, Maja Krstic

Non-autonomous stochastic Gilpin–Ayala competition model with time-dependent delay

18.10-18.30

Kristina Veljkovic, Halima Elfaghihe, Vesna Jevremovic

Economic statistical design of \bar{X} control chart for non-normal symmetric distribution of quality characteristic

18.30-18.50

İbrahim Çanak, Sefa ANIL SEZER

A Theorem for the Weighted Mean Method of Summability

18.50-19.10

Arpad Takači

On the asymptotic behavior and expansion of the generalized Stieltjes transform

19.10-19.30

Sefa Anıl Sezer, İbrahim Çanak

Conditions for the equivalence of power series and discrete power series methods of summability

May 24, 2014

09:00-11:00 **Plenary lectures**

11:00-11:30 Cofee break

11:30-13:30 Field 1 – Chairman: Pavle Blagojević

11.30-11.50

Stevan Pilipovic, Suzana M Aleksic

Construction of p frames for weighted shift-invariant spaces

11.50-12.10

Marko Obradović

On Asymptotic Efficiency of Goodness of fit Tests for Pareto Distribution based on Characterizations

12.10-12.30

Jelena Aleksic, Stevan Pilipovic, Ivana Vojnovic

H-distributions

12.30-12.50

Nikola Tuneski

Some results on the class \mathcal{U} and the class of α -convex functions

12.50-13.10

Biljana Jolevska-Tuneska

On compositions of distributions

13.10-13.30

Ilja Gogic

Derivations and local multipliers of C^ -algebras*

13:30-15:00 Lunch break

15:00-17:00 **Field 3a** – Chairman: Slobodanka Jankovic

15.00-15.20

Miljana Jovanovic, Marija Krstic

Stability of stochastic vector-borne disease model with direct transmission

15.20-15.40

Jasmina Djordjevic, Svetlana Jankovic

Perturbed backward stochastic Volterra integral equations

15.40-16.00

Ljiljana Petrovic, Sladjana Dimitrijevic

Generalizations of Granger Causality in Continuous Time and Some Types of Convergence

16.00-16.20

Lenka Glavas

New examples of partial samples from the uniform AR(1) process and asymptotic distributions of extremes

16.20-16.40

Tijana Levajković

Chaos Expansion Method for SDEs

16.40-17.00

Marija Milošević

Pantograph stochastic differential equations under nonlinear growth conditions and the Euler-Maruyama approximation

17.00-17.20

Dragana Valjarevic, Ljiljana Petrović

Theory of statistical causality and extremality of measure

17:00-17:30 Cofee break

17:30-19:30 **Field 3a-** Chairman: Gradimir Milovanović

17.30-17.50

Sanja Konjik

Constitutive equations with complex derivatives in viscoelastic models

17.50-18.10

Biljana Jolevska-Tuneska, Tatjana Atanasova-Pacemska

Results on product of distributions

18.10-18.30

Jelena Sreten Stanojevic

Transformed confidence intervals for mean of skewed distributions

18.30-18.50

Andrea Rožnjik

Asymptotic Estimates of Solutions of a System of Delay Difference Equations with Continuous Time

18.50-19.10

Bratislav D. Iricanin

On explicit solutions of higher-order rational difference equations and their system

19.10-19.30

Hajnalka Peics, Andrea Rožnjik

Asymptotic Estimates of Solutions of a System of Delay Difference Equations with Continuous Time

11:00-11:30 Cofee break

11:30-13:30 **Field 3b** – Chairman: Slavko Simic

11.30-12.00

Slavko Simic

Some best possible Lipschitz constants for the distance ratio metric

12.00-12.30

Zoran Kadelburg, Stojan Radenovic

Fixed point results in generalized metric spaces without Hausdorff property

12.30-12.50

Ljiljana M. Gajic, Mila M. Stojaković

On fixed point results for Matkowski type of mappings in G-metric spaces

12.50-13.10

Vladimir Pavlovic, Dejan Ilic, Vladimir Rakocevic

Partial metric fixed point theory: variations on atheorem of Fisher

13.10-13.30

Rale M. Nikolić, Siniša N. Ješić, Nataša A. Babačev, Dragan Ž. Djurčić

Fixed point theorems for non-self mappings with nonlinear contractive condition in strictly convex Menger PM-spaces

13.30-13.50

Miloš Arsenović

Multipliers in spaces of harmonic functions and embedding theorems

13:30-15:00 Lunch break

15:00-17:00 Field 1 – Chairman: Miroslav Ristic

15.00-15.30

S. Rackov1, Z. Lozanov Crvenković

Application of Cox proportional hazard model in credit risk analysis

15.20-15.40

Đurđica Takači

On the solutions of the higher order of fuzzy differential equation

15.40-16.00

Ekrem Aki Aljimi

Approximation for periodic functions via generalized weighted Norlund–Euler statistical convergence

16.00-16.20

Tatjana Bajic

A mean value theorem for system of integrals and the Gauss-Hermite quadrature

16.20-16.40

Momcilo Bejlca

Asymptotic behaviour of function mean values

17:00-17:30 Cofee break

17:30-19:30 **Field 3b** – Chairman: Zoran Kadelburg

17.30-18.00

Nikolay Rozov

Modified model of FitzHugh – Nagumo in neurodynamics

18.00-18.30

Jelena Jockovic, Pavle Mladenovic

New limit theorems for the coupon collector's problem

18.30-18.50

Predrag Rajkovic, Sladjana Marinkovic, Natasa Savic

Geometry of an experiment and the function of expected values

18.50-19.10

Abhijit Banerjee

Uniqueness Of Meromorphic Functions Sharing Two Sets With Finite Weight III

19.10-19.30

Gerard Brunet

Principal Component Analysis applied to Real Images

19.30-19.50

Sibel Ersan, Huseyin Cakalli

Lacunary ward continuity in two normed spaces

May 25, 2014

09:00-10:10 **Plenary lectures**

11:00-11:30 Cofee break

11:30-13:40 **Field 3a** - Chairman: Slobodanka Jankovic

11.30-12.00

Sergey Evgenyevich Zhukovskiy, Aram Arutyunov

Coincidence points of two mappings acting in generalized metric spaces

12.00-12.30

Leda Minkova

Bivariate Inflated-parameter Power Series Distributions

12.30-13.00

Ekrem Savas

Lacunary statistical convergence of double sequences in topological groups

13.00-13.20

Huseyin Cakalli

Upward and downward statistical continuities

13:20-13:30 Cofee break

13:30-14:30 **Field 3a** - Chairman: Leda Minkova

13.30-13.50

Hermann Mena

Numerical Solution of the infinite-dimensional LQR/LQG-design problem

13.50-14.10

Bojana Milosevic

The Existence of the Density of the Ruin Time for the Sum of Two Compound Poisson Processes Perturbed by a Diffusion

14.10-14.30

Javid Ali

TBA

13th Serbian Mathematical Congress
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Conference Schedule

Field 4: Geometry, Algebraic Geometry and Topology, Mathematical Physics

May 22, 2014

- 15:00–17:00 **Plenary lectures**
- 17:00–17:30 Coffee break
- 17:30–19:20 Field 4 – Chairman: Neda Bokan
- 17:30–18:00 Mikami Hirasawa, *On the distributions of the zeros of Alexander polynomials of knots*
- 18:00–18:20 Osman Mucuk, H. Fulya AKIZ, *Monodromy groupoids of topological internal groupoids*
- 18:20–18:40 Milica Stojanovic, *On 3-triangulation of toroids*
- 18:40–19:10 Slavik Jablan, Ljiljana Radovic, *MEANDER KNOTS AND LINKS*
- 19:10–19:30 Ljiljana Radovic, Slavik Jablan, *Warping degree and ascending numbers of knots*

May 23, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Coffee break
- 11:30–13:20 Field 4 – Chairman: Dmitry Millionshchikov
- 11:30–12:00 Alexey Tuzhilin, *Optimization Problems with Geometrical Graphs*
- 12:00–12:20 Nikolay Yurievich Erokhovets, *Operators on the ring of convex polytopes and cd-index*
- 12:20–12:40 Ivan Limonchenko, *Minimally non-Golod simplicial complexes in toric topology*
- 12:40–13:00 Denis Ilyutko, Igor Nikonov, *External and local minimal networks on normed planes*
- 13:00–13:20 Katarina Kukić, *The systems of the Kowalevski type and Margi's method of syzygies*
- 13:30–15:00 Lunch break
- 15:00–17:00 Field 4 – Chairman: Alexey Tuzhilin
- 15:00–15:30 Andrey Evgenevich Mironov, *Commuting higher rank ordinary differential operators*
- 15:30–16:00 Dončo Dimovski, *Geometry of Spin Manifolds*
- 16:00–16:20 Emilija Nešović, Kazim Ilarslan, *On generalized null Mannheim curves in Minkowski space-time*
- 16:20–16:40 Vladimir Balan, Jelena Stojanov, *Applications of the mean curvature flow associated to anisotropic Generalized Lagrange metrics in image processing*
- 16:40–17:00 Stanislav Nikolaenko, *The Chaplygin case in dynamics of a rigid body in fluid is orbitally equivalent to the Euler case and to the Jacobi problem*
- 17:00–17:30 Coffee break
- 17:30–18:50 Field 4 – Chairman: Zoran Rakić
- 17:30–18:00 Dmitry Millionshchikov, *Singular Virasoro vectors: new explicit formulae and their applications*
- 18:00–18:20 Alexander Zheglov, *Geometric properties of quantum completely integrable systems*
- 18:10–18:30 Handan Yildirim, *Spacelike De Sitter Monge Forms in Sence of Slant Geometry*
- 18:30–18:50 Marija S. Najdanović, *Infinitesimal bending influence of the Willmore energz of curves*

May 24, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Coffee break
- 11:30–13:30 Field 4 – Chairman: Graham Stanley Hall
- 11:30–12:00 Fabio Gavarini , *From simple Lie superalgebras to algebraic supergroups*
- 12:00–12:30 Louis Kauffman, *Virtual Knot Theory*
- 12:30–13:00 Emil Molnár, *Classical ball packing problems in the Thurston geometries*
- 13:00–13:20 Marko Stosic, *Volume conjecture, A-polynomial, Mahler measure and L-series*
- 13:30–15:00 Lunch break
- 15:00–17:00 Field 4 – Chairman: Uday Chand De
- 15:00–15:30 Josef Mikeš, Irena Hinterleitner, *On geodesic and holomorphically projective mappings*
- 15:30–16:00 Graham Stanley Hall, *Some Remarks on Mathematical General Relativity Theory*
- 16:00–16:30 Neda Bokan, Tijana Sukulovic, Srdjan Vukmirovic, *Lorentz geometry of 4-dimensional nilpotent Lie groups*
- 16:30–17:00 Borysenko Oleksandr Andriyovych, *About cylindricity of Submanifolds with straight line in Minkovsky Space*
- 17:00–17:30 Coffee break
- 17:30–19:30 Field 4 – Chairman: Srdjan Vukmirovic
- 17:30–18:00 Andrey Vesnin, *On complexity of 3-manifolds with certain properties*
- 18:00–18:30 Luc Vrancken, *Lagrangian immersions of homogenous 3-manifolds in complex space forms*
- 18:30–19:00 Uday Chand De, *On Generalized Ricci Recurrent Manifolds*
- 19:00–19:30 Cornelia-Livia Bejan, Simona Druta-Romaniuc, *Harmonic connections and harmonic almost tangent structures with respect to natural metric*

May 25, 2014

09:00–11:00 **Plenary lectures**

11:00–11:30 Cofee break

11:30–13:00 Field 4 – Chairman: Mirjana Djorić

11:30–12:00 Srdjan Vukmirovic, *Pseudo-Riemannian geometry of Heisenberg group*

12:00–12:20 Yavuz Selim Balkan, *Some Symmetry Conditions of Almost S-manifolds*

12:20–12:40 Gianluca Bande, *Invariant submanifolds of Hermitian bicontact structures (or normal metric contact pairs)*

12:40–13:00 Ivan Kozlov, *Invariant distributions of compatible Poisson brackets*

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Conference Schedule

Field 5: History, Learning, Teaching of Mathematics and Informatics

May 23, 2014

09:00–11:00 **Plenary lectures**

11:00–11:30 Cofee break

11:30–13:30 Field 5 – Chairman: Đurdica Takači

11:30–12:00

Sergei Abramovich:

Computational experiment approach to pre-college mathematics: Theory, pedagogy, tools

12:00–12:30

Branislav Z. Popović:

The development of teaching trigonometry as a paradigm for the development of mathematics teaching in Serbia in 19th century

12:30–13:00

Žikica Perović:

Continuous Fractions and Calculation of Pi

13:00–13:15

Zevdžo Hurić:

Korelacija matematike i ostalih nastavnih predmeta

13:15–13:30

Miroslav Mladenović:

Primena različitih oblika individualizirane nastave matematike

13:30–15:00 Lunch break

15:00–17:00 Field 5 – Chairman: Žikica Perović

15:00–15:30

Andrej Blejec:

Use of simulated data and dynamic graphics for teaching statistics

15:30-16:00

Ivko M. Dimitrić

Invariant functions and n -to-1 maps

16:00-16:15

Aleksandra Ravas:

The Origins and Beginnings of Probability Theory: Games of Chance, Problem of Points and Correspondence between Pascal and Fermat

16:15-16:30

Biljana Č. Popović:

Teaching Statistics on Faculties of Mathematics in Serbia

16:30-16:45

Vesna Veličković, Sonja Šumonja, Tatjana Šubarević:

Design of Tests for Mathematics in the Moodle system

16:45-17:00

Sonja Šumonja, Tatjana Šubarević, Vesna Veličković:

ICT in the contemporary teaching of Mathematics in high schools

17:15–17:30 Cofee break

17:30–19:00 Field 5 – Chairman: Aleksandar Lipkovski

17:30-18:00

Žikica Perović:

On The Existence of Mathematical Objects

18:00-18:30

Bernd Steinbach, Cristian Posthoff:

Extremely Complex Boolean Problems a Challenge for Mathematics and Informatics

18:30-18:45

Sonja Šumonja, Vesna Veličković, Tatjana Šubarević:

Z-generation is around us. What now?

18:45-19:00

Tanja M. Sekulić:

Implementation of mathematical modeling on introducing the concept of the first derivative

May 24, 2014

09:00–11:00 **Plenary lectures**

11:00–11:30 Coffee break

11:30–13:30 Field 5 – Chairman: Alija Mandak

11:30–12:00

Mileva Prvanović

Od euklidske geometrije ka projektivnoj i natrag

12:00–12:30

Neda Bokan, Tijana Sukilović, Srđan Vukmirović:

Student centered learning - what is it?

12:30–13:00

Đurđica Takači, Radica Karović:

Mathematical modeling in education

13:00–13:30

Daniel Abraham Romano:

What does Exactly Means "Social Implication of Mathematics Education"?

13:30–15:00 Lunch break

15:00–17:00 Field 5 – Chairman: Mileva Prvanović

15:00–15:30

Aleksandar T. Lipkovski:

Šta prvo: Tales ili Pitagora

15:30–15:45 Dragana Stanojević:

Timss matematika 2011

15:45–16:00

Radoje Košanin:

Problems that a teacher in primary school has while applying regular laws in work and the solutions that lead to better results in PISA tests and final exam

16:00-16:15

Valentina Kostić, Đurđica Takači:

Cognitive-visual approach to the teaching topic "Derivative of a function" by applying visualized problems

16:15-16:30

Ljubiša Dinić:

Мере геометријских објеката као граничне вредности у основној школи (проблем уситњавања, нагомилавања-утврђивање границе нагомилавања)

16:30-16:45

Radica Karović, Nikola Živković, Suzana Ivanović:

Metacognitive approach and its modifications in maths classes, primary school

16:45-17:00

Miroslav Marić, Marija Radojčić, Slaviša Radović, Aleksandar Trajko Lipkovski:

Унапређење наставе математике коришћењем платформе „ЕЗбирка“

17:00-17:30 Coffee break

17:30-17:45

Alija Mandak, Zlatka Pavličić:

Улога проблемских задатака из области квадрата и коцке на развој математичких способности ученика

17:45-18:00

Milan Živanović:

Геометрија и математичко-логичке игре

18:00-18:15

Miroslav Mladenović:

Учење у настави математике откривањем

18:15-18:30

Miroslav Mladenović:

Математички задаци и развој математичког мишљења

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Conference Schedule

Field 6: Theoretical Computer Sciences, Computer Sciences

May 22, 2014

- 15:00–17:00 **Plenary lectures**
- 17:00–17:30 Coffee break
- 17:30–19:20 Field 6 – Chairman: Marko Petković
- 17:30–17:50 Gordana Rakić, Miloš Savić, Zoran Budimac, Mirjana Ivanović
Toward The Formalization of Software Measurement by Involving Network Theory
- 17:50–18:10 Miloš Savić, Mirjana Ivanović, Miloš Radovanović
The construction of co-authorship networks supported by author name analysis
- 18:10–18:30 Branimir Todorovic, Dejan Mancev
Adaptive Clustering of Gaussian Mixture components in Nonlinear Bayesian Estimation of Recurrent Neural Networks
- 18:30–18:50 Svetozar Rancic
A new efficient algorithm for finding k shortest simple paths in undirected graphs
- 18:50–19:10 Marko Milosevic
WebGRAPH - an online graph filtering system
- 19:10–19:30 Dušan Tošić, Ana Zeković
Representation of computations in Knot theory by using XML technologies

May 23, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Cofee break
- 11:30–13:30 Field 6 – Chairman: Predrag Krtolica
- 11:30–12:00 Heiko Vogler
Syntax-directed models for statistical machine translation
- 12:00–12:30 David Pokrajac, Andrew Maidment, Marko Petković, Predrag Bakić
Mathematical Issues in Software Breast Phantom Simulation
- 12:30–12:50 David Pokrajac, Predrag Bakić, Andrew Maidment, Shane Jensen, Xiquan Shi, Feiyu Chen
Partial volume simulation in software breast phantoms
- 12:50–13:10 Marko Petković
Construction and verification of the spherical coverage by hypercaps
- 13:10–13:30 Marjan Kuchaki Rafsanjani, E Eskandari, A Borumand Saeid
Genetic Algorithm and Local Search Hybridization to Solve Traveling Salesman Problem
- 13:30–15:00 Lunch break
- 15:00–17:00 Field 6 – Chairman: Heiko Vogler
- 15:00–15:20 Ivana Micić, Jelena Ignjatović, Miroslav Ćirić
Algorithms for computing the greatest simulations and bisimulations for fuzzy automata
- 15:20–15:40 Zorana Jančić, Ivana Micić, Jelena Ignjatović, Miroslav Ćirić
Algorithms for determinization of fuzzy and weighted automata
- 15:40–16:00 Ivan Stanković, Jelena Ignjatović, Miroslav Ćirić
Application of fuzzy relation equations in data analysis
- 16:00–16:20 Marjan Milanović, Miroslav Ćirić, Jelena Ignjatović, Aleksandar Stamenković
State reduction for fuzzy automata with outputs
- 16:20–16:40 Aleksandar Stamenković
Rank of fuzzy matrices. Applications in state reduction of fuzzy automata
- 16:40–17:00 Milan Bašić
Interconnection networks with recursive structure

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Plenary lectures

May 22, 2014

- 15:00-17:00 Chairman: Miroslav Ćirić
- 15:00-15:40 Robin Harte, *Non commutative Muller regularity*
- 15:40-16:20 Miodrag Mateljević, *Distortion of quasiregular mappings and equivalent norms on Lipschitz-type space*
- 16:20-17:00 Manfred Droste, *Random constructions imply symmetry*

May 23, 2014

- 09:00-11:00 Chairman: Miodrag Mateljević
- 09:00-09:40 Gradimir Milovanović, *Fast summation methods based on quadratures of Gaussian type*
- 09:40-10:20 Aleksandar Ivić, *On some mean value results for the zeta-function and a divisor problem*
- 10:20-11:00 Dobitnik nagrade

May 24, 2014

- 09:00-11:00 Chairman: Gradimir Milovanović,
- 09:00-09:40 S. Pilipovic, B. Prangoski, *Convolution and Anti-Wick and Weyl quantization for ultradistributions*
- 09:40-10:20 Anatoly Timofeevich Fomenko, *Topology of Integrable Hamiltonian Systems - Recent Results*
- 10:20-11:00 David Blair, *Curvature of Contact Metric Manifolds*

May 25, 2014

- 09:00-10:20 Chairman: Stevan Pilipovic
- 09:00-09:40 Janos Pintz, *New results on the difference of consecutive primes*
- 09:40-10:20 Pavle V. M. Blagojević, *Characteristik classes that cutedequal areas and equal perimeters and prevent highly regular embeddings*
- 10:20-11:00 Dragan Marušić, *Semiregular subgroups of transitive permutation groups*