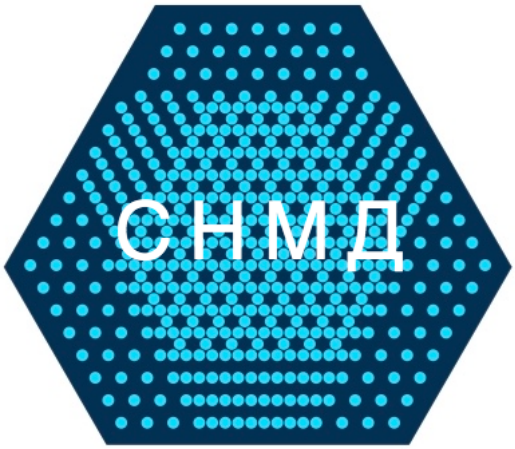

Српско научно математичко друштво

Kongres mladih matematičara u Novom Sadu

03 – 05. oktobar 2019.
Novi Sad, Srbija

Knjiga sažetaka

Programski odbor:

Stevan Pilipović
Gradimir Milovanović
Dragan Đorđević
Miodrag Mateljević
Marko Nedeljkov
Zoran Ognjanović
Nataša Krejić
Ćemal Dolićanin
Miodrag Mihaljević
Miroslav Ćirić
Marija Stanić

Organizacioni odbor:

Biljana Nedeljkov, sekretar
Nenad Teofanov
Marko Petković
Ivana Đurđev
Danijela Mitrović

Institucije organizatori:

Srpsko naučno matematičko društvo, Beograd
Srpska akademija nauka i umetnosti, Ogranak u Novom Sadu
Departman za matematiku i informatiku, PMF, Univerzitet u Novom Sadu
Matematički institut SANU, Beograd

Plan rada

Četvrtak, 03. oktobar 2019.

Srpska akademija nauka i umetnosti, Ogranak u Novom Sadu, Nikole Pašića 6, Novi Sad

14:00-15:00		Registracija učesnika
15:00-15:15		Otvaranje Kongresa
15:15-16:00	Dušan Jakovetić	*Distributed optimization and learning*
16:00-16:45	Luka Milićević	*Multilinear maps on multilinear varieties*
16:45-17:00		pauza za kafu
17:00-17:45	Marko Petković	*Iterative methods and neural networks for the computation of generalized inverses*
17:45-18:30	Bojan Prangoski	*Quasi-analytic representation theory of* $(\mathbb{R}^d; +)$ *over quasi-complete locally convex spaces*
19:30		svečana večera u restoranu "Fontana"

Petak, 04. oktobar 2019.

Departman za matematiku i informatiku, Trg Dositeja Obradovića 4, Novi Sad

08:30-09:00	Registracija učesnika	

Amfiteatar I, predsedavajući: Bojan Prangoski

09:00-09:20	Suzana Aleksić	*Frames for Hilbert and Banach spaces*
09:20-09:40	Sanja Atanasova	*Characterization of wave front sets via Stockwell transform*
09:40-10:00	Pavel Dimovski	*Modulation spaces related to translation-invariant Banach spaces of quasi-analytic ultradistributions*
10:00-10:20	Lenny Neyt	*Characterizing the nuclearity of Gelfand-Shilov spaces*
10:20-10:40	Zorica Milovanović Jeknić	*Nonlocal boundary value problem*

Amfiteatar VII, predsedavajući: Marko Petković

09:00-09:20	Marija Krstić	*Stability of the Stochastically Perturbed Tumor-Immune Interaction Model with Delay*
09:20-09:40	Jasmina Đorđević	*A stochastic analysis of the impact of fluctuations in the environment on pre-exposure prophylaxis for HIV infection*
09:40-10:00	Marija Milošević	*Comparison of the Euler-Maruyama and backward Euler methods for a class of pantograph stochastic differential equations*
10:00-10:20	Dušan Đorđević	*L^p and almost sure convergence of an approximate method for stochastic differential equations*
10:20-10:40	Vuk Vujović	*Stohastički Heroinski model*

10:40-11:00	pauza za kafu	

Amfiteatar I, predsedavajući: Bojan Bašić

11:00-11:20	Lazar Milenković	*Aproksimacioni algoritmi za minimizaciju uskog grla u asimetričnoj verziji problema trgovačkog putnika*
11:20-11:40	Anna Slivková	*Hešov broj je neograničen za $d \to \infty$*
11:40-12:00	Kristina Ago Balog	*O jako palindromičnim rečima: ternarni slučaj*
12:00-12:20	Stefan Hačko	*O nekim aritmetički interesantnim kolekcijama permutacija*
12:20-12:40	Danijela Mitrović	*Emulaciona ekvivalencija kombinatornih igara*

Amfiteatar VII, predsedavajući: Luka Milićević

11:00-11:20	Martin Ljubenović	*Some majorization relations and their linear preservers on $\ell^p(I)$*
11:20-11:40	Maja Obradović	*A class of neutral stochastic differential equations with time-dependent delay and Markovian switching and the Euler-Maruyama approximation*
11:40-12:00	Miljana Stanković	*Stochastic competition model with herd behavior and Allee effect*
12:00-12:20	Stefan Tošić	*Generalized Polynomial Chaos and Stochastic Galerkin Method*
12:20-12:40	Ersin Gilić	*Some new fixed point results for convex contractions in B-metric spaces*
12:40-14:00	pauza za ručak	

Amfiteatar I, predsedavajući: Srboljub Simić

14:00-14:20	Milana Pavić-Čolić	*Kinetic monatomic gas mixture models: on the Cauchy problem and L^p theory for the system of Boltzmann equations*
14:20-14:40	Enes Kačapor	*The Strongest Inverted Compressed Column*
14:40-15:00	Srđan Trifunović	*Interakcija nestišljivog viskoznog fluida sa termoelastičnim pločama*
15:00-15:20	Nevena Dugandžija	*Generalized solution to multidimensional cubic Schrodinger equation with delta potential*
15:20-15:40	Sanja Ružičić	*Approximate solution to pressureless gas dynamics model and shadow wave tracking procedure*

Amfiteatar VII, predsedavajući: Dušan Jakovetić

14:00-14:20	Nataša Krklec Jerinkić	*Distributed Fixed Point Methods for Solving Systems of Linear Algebraic Equations*
14:20-14:40	Tijana Ostojić	*On an Inexact Restoration Subgradient Method*
14:40-15:00	Jovana Dedeić	*Encoding Compensable Processes Into Adaptable Processes*
15:00-15:20	Davor Kumozec	*Numerical solution of transport equation by means of the method of characteristics*
15:20-15:40	Aleksandra Delić	*Analysis and numerical approximation of boundary value problems with fractional derivatives*
15:40-16:00	pauza za kafu	

Amfiteatar I, predsedavajući: Filip Tomić

16:00-16:20	Milica Žigić	*Wick-type nonlinearities in stochastic evolution equations with randomness*
16:20-16:40	Katarina S. Kostadinov	*Existence and asymptotic behavior of q-regularly varying solutions of nonlinear second order q-difference Thomas-Fermi equation*
16:40-17:00	Valentina Timotić	*Logarithmic (translationally) rapidly varying sequences and selection principles*
17:00-17:20	Nevena Petrović	*Anti-Gaussian quadrature rule for trigonometric polynomials*
17:20-17:40	Tatjana V. Tomović	*Multiple Orthogonality and Applications in Numerical Integration*

Amfiteatar VII, predsedavajući: Ivana Đurđev

16:00-16:20	Kristina Asimi	*Obećanja svode konačne probleme na beskonačne*
16:20-16:40	Vladica Andrejić	*Algoritmi za ostatke levog faktorijela i Kurepina hipoteza*
16:40-17:00	Miloš Milovanović	*Intuicionističko zasnivanje matematike i primene u muzici, arhitekturi, obrazovanju...*
17:00-17:20	Simona Kašterović	*Kripkeove semantike za lambda račun sa parovima i sumama*
17:20-17:40	Nenad Stojanović	*Metric logics*

20h druženje u klubu "Giardino", Bulevar Mihajla Pupina 1, poslednji sprat

Subota, 05. oktobar 2019.

Departman za matematiku i informatiku, Trg Dositeja Obradovića 4, Novi Sad

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Amfiteatar I, predsedavajući: Kristina Ago Balog

09:00-09:20	Boriša Kuzeljević	*Globalna teorija ultrafiltera*
09:20-09:40	Samir Zahirović	*O obogaćenom stepenom grafu grupe*
09:40-10:00	Emir Zogić	*Laplacian resolvent energy of graphs*
10:00-10:20	Irena M. Jovanović	*Spectral distances of graphs*
10:20-10:40	Milan Bašić	*On the spread of integral circulant graphs*

Amfiteatar VII, predsedavajući: Đorđe Vučković

09:00-09:20	Snežana Gordić	*Stacionarni Kolomboovi stohastički procesi sa primenama u rešavanju jednačina*
09:20-09:40	Limonka Koceva Lazarova	*Some compositions of distributions in neutrix calculus*
09:40-10:00	Marija Miteva	*Products of Distributions in Colombeau Algebra*
10:00-10:20	Daniel Velinov	*On the frequently hypercyclic C_0-semigroups*
10:20-10:40	Radoslav Božić	*The Application of Dynamic Software in the Examining Functions with Parameters and Their Derivatives*

10:40-11:00	pauza za kafu

Amfiteatar I, predsedavajući: Nenad Teofanov

11:00-11:20	Filip Tomić	*Paley-Wiener theorems and wave front sets*
11:20-11:40	Ivana Vojnović	*Continuity of pseudodifferential operators on mixed-norm Lebesgue spaces*
11:40-12:00	Đorđe Vučković	*Toroidal pseudodifferential operators in spaces of ultradistributions on $\mathbb{T}^n$*
12:00-12:20	Snježana Maksimović	*A sequential approach to ultradistribution spaces*

Amfiteatar VII, predsedavajući: Boriša Kuzeljević

11:00-11:20	Đorđe Baralić	*Small covers over neighborly polytopes*
11:20-11:40	Milan Zlatanović	*Koneksije na nesimetričnim Rimanovim mnogostrukostima*
11:40-12:00	Nenad O. Vesić	*IMPOSSIBLE: Whether, Why, How*
12:00-12:20	Jovana Nikolić	*Parcijalni kvazimorfizmi na grupi Hamiltonovih difeomorfizama kotangentnog raslojenja*
12:20-12:40	Anika Njamcul	*Maximal topologies obtained via ideals*

12:40-13:20	pauza za kafu i posluženje	

Amfiteatar I, predsedavajući: Tijana Ostojić

13:20-13:40	Stefan Ivković	*Semi-Fredholm theory on Hilbert C^*-modules*
13:40-14:00	Miloš Cvetković	*Decompositions of bounded linear operators*
14:00-14:20	Marija Cvetković	*Generalized Ulam-Hyers stability of integral and operator equations*
14:20-14:40	Nebojša Č. Dinčić	*Solving the Sylvester Matrix Equation $AX-XB = C$ when $\sigma(A) \cap \sigma(B) \neq \emptyset$*
14:40-15:00	Bogdan Đorđević	*On some properties of singular Sylvester operator equations*

Amfiteatar VII, predsedavajući: Danijela Mitrović

13:20-13:40	Ivana Đurđev	*Sendvič polugrupe u lokalno malim kategorijama*
13:40-14:00	Edin Glogić	*On Kirchhoff index, Laplacian energy, number of spanning trees of graphs and their relations*
14:00-14:20	Dragan S. Rakić	*Partial orders based on generalized inverses and annihilators*
14:20-14:40	Dragan Jočić	*Some notes on distributivity equations and aggregation operations*
14:40-15:00	Dušan J. Simjanović	*Fuzzy Relation Equations and Fuzzy Rough Approximation Operators*

Amfiteatar I

15:00	Zatvaranje Kongresa	

nadilazi narcističku kulturu modernizma, svedenu na ograničeno prisustvo koje podrazumeva ravnodušnost spram prošlosti i bezličan odnos spram budućnosti. Teorija je, prema tome, takođe značajna za humanističke nauke i njihovu metodologiju.

Products of Distributions in Colombeau Algebra

Marija Miteva
Department of Mathematics and Statistics, Faculty of Computer Science
University "Goce Delcev" - Stip, Macedonia
marija.miteva@ugd.edu.mk

The problem about product of two arbitrary distributions is one of the main problems that classical theory of distributions had came across. Many attempts have been done for overcoming this problem. The construction of the Colombeau algebra seems to be an optimal solution until now for dealing with products of distributions. Colombeau algebra is an associative, differential algebra and the space of Schwartz distributions is embedded in it. The most important feature of the Colombeau algebra is that the product of elements in it generalises the classical product of distributions, thus the classical product of two distributions, if it exists, and the new one obtained in Colombeau algebra (Colombeau product of distributions) are equal. Furthermore, in Colombeau algebra we can obtain many products of two singular distributions which in the classical theory are not defined. One of the advantages of Colombeau theory of generalized functions is that we can operate with singular distributions easily as well as with smooth functions.

I will present the idea for the construction of such algebra and some examples with results about products of two singular distributions that can not be calculated in the classical theory of distributions.

Emulaciona ekvivalencija kombinatornih igara

Danijela Mitrović
Matematički Institut SANU
Beograd, Srbija
danijela.mitrovic@dmi.uns.ac.rs

Bavimo se imparcijalnim kombinatornim igrama. Uvešćemo pojam *emulacione ekvivalencije* dve takve igre: intuitivno govoreći, igre koje su emulaciono ekvivalentne „ponašaju se potpuno isto“ sa stanovišta mogućih poteza u odgovarajućim pozicijama.

Takođe ćemo uvesti jednu specijalnu igru na grafovima, i pokazaćemo da odgovarajućim odabirom njenih početnih parametara možemo dobiti igre koje su emulaciono ekvivalentne s čitavim nizom poznatih i široko izučavanih kombinatornih igara, kao što su Nim, tzv. igra oduzimanja, Chomp, Notakto itd. Međutim, pokazaćemo da naša igra na grafovima ipak nije „svemoćna“, u tom smislu što ćemo za određenu igru (izvesnu modifikaciju igre Nim) pokazati da ona nije emulaciono ekvivalentna s uvedenom grafovskom igrom (ni za kakav odabir parametara).

Ovo je zajednički rad sa Bojanom Bašićem i Nikolom Milosavljevićem.