People's Democratic Republic of Algeria

الجمهورية الجزائرية الديموقراطية الشعبية

Ministry of Higher Education and Scientific Research

وزارة التعليم العالي والبحث العلمي

University Center of Barika

المركز الجامعي بريكة

Institute of Science, Department of Mathematics

معهد العلوم، قسم الرياضيات

The 4th International Conference On Applied Algebra, ICAA'2024 17-18th September 2024, Barika, Algeria

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ICAA'2024 Program

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08h00-08h30: Registration
08h30 – 09h00: Opening Ceremony (Omar Bensaid Room)

First Plenary Session

Chairman: Dr. Soheib Milless

Coffee Break 10h00-10h15

Recent trends in the theory of aggregation 9h00-10h00

Pr. Dr. Bernard De Baets, Ghent university, Belgium

Security based on matrix decomposition 11h00 – 11h45

Pr. Dr. Lemnouar Noui, University of Batna, Algeria

Second Plenary Session

Chairman: Pr. Dr. Bernard De Baets

On picture fuzzy sets 10h15-11h00

Pr. Dr. Abdelaziz Amroune, University of M'sila, Algeria

Compositions of ternary relations 11h45 – 12h15

Pr. Dr. Lemnaouar Zedam, University of M'sila, Algeria

Lunch served at institute of science 12h15–14h00

Oral parallel Sessions

Time	Session 1: (face to face) Fuzzy set theory, Non-Classical Logic and Applications Chairman: Pr. Lemnaouar Zedam
14h00 – 14h20	**Saadaoui Kheir**, University of Msila, Algeria: Type-2 Fuzzy topology generated by type-2 fuzzy Relation.
14h20 – 14h40	**Guelfen Hanane,** University Center of Barika, Algeria: Using Fuzzy Kamal Transform method for solving fuzzy system of Volterra Integro-Differential equations
14h40 – 15h00	**DJAZIA SAADI**, University of Msila, Algeria: Some Characterizations of Picture Fuzzy Filters in a Picture Fuzzy Lattice
15h00 – 15h20	**Mourad Yattou**, National higher school of hydraulic, Algeria: Algebraic Integrations on Lattices.
Time	**Chairman: Pr. Amroune Abdelaziz**
15h20 – 15h40	**Douadi Imane**, University of Msila, Algeria: Some Characterization of Ideals in Hyperlattice Ordered Semigroups.
15h40 – 16h00	**MOHAMED Saad**, University of Msila, Algeria: Some operation on picture subgroups.
16h00 – 16h20	**Brahim Ziane**, ENS Bousaada, Algeria: Intuitionistic fuzzy subgroup of crisp group with respect to an intuitionistic fuzzy norm T
16h20 – 16h40	**Hassane Bouremel**, University Center of Barika, Algeria: Construction New Ordered Hom-groups By Twisting.
16h40 – 17h00	**Omar Barkat,** University Center of Barika, Algeria: An overview of the lattice of single-valued neutrosophic subgroups
Time	Session 2: (face to face) Group theory+Coding theory and Cryptography Chairman: Pr. Noui Lemnaouar
14h00 – 14h20	**Boudaoud Abdelmajid,** University of Msila, Algeria: Some representations of unlimited natural numbers.
14h20 – 14h40	**Zoheir Chebel,** University Centre of Barika, Algeria: Some Constructions of Weak Hom-Quantum group.
14h40 – 15h00	**GARICI TAREK**, USTHB University, Algeria: Some results concerning the exponential Diophantine equation $(a^n-1)(b^n-1) = x^2$
15h00 – 15h20	**Adoui Salah**,University of Batna 2, Algeria: Diffie-Hellman key exchange using particular matrices.
Time	**Chairman: Pr. Boudaoud Abdelmajid**

Face-To-Face Program
The first day September 17, 2024

15h20 – 15h40	**Pr. Boubakeur Bahri**, Algeria: Some results on Discrete valuation ring.
15h40 – 16h00	**Boumahdi Rachid**, National higher school of mathematic, Algeria: Irreducibility and Additive Decompositions of Polynomials Over Unique Factorization Domains.
16h00 – 16h20	**Hamani Ahlem**, University of setif 1, Algeria: NON-PERFECT GROUPS WHOSE PROPER SUBGROUPS ARE FINITE-BY-(LOCALLY NILPOTENT).
16h:20-16h:40	**Brahim Benzeghli,** University of Batna 2, Algeria Elliptical curves for encryption data
Time	**Session 3: (face to face)** **Related topic** **Chairman: Dr. Omar Barkat**
14h00 – 14h20	**Maissa Kada**, University of Batna 2, Algeria : On the solution bounds of some matrix equations arising in control theory.
14h20 – 14h40	**Iman Boulmarka**, University Center of Barika, Algeria: Stability of a solution for a wave equation with polynomial boundary variable damping term.
14h40 – 15h00	**Zaouia Saliha**, University of Batna 2, Algeria: A new solution of the non-symmetric algebraic Riccati equation
15h00 – 15h20	**Siham Brahim**, University of Batna 2, Algeria : Weakened Well-Posedness of a Characteristic Boundary Value Problem
Time	**Chairman: Dr. Iman Boulmarka**
15h20 – 15h40	**Nassim FERAHTIA**, University of Msila, Algeria: Uniform localization of some finite-dimensional vector spaces.
15h40 – 16h00	**Atef saci,** University Center of Barika, Algeria : Unicité́ e et stabilité́ e dans un problème inverse pour l´ équation de Schrödinger avec condition au bord de type Dirichlet.
16h00 – 16h20	**Ahmed Guchi**, BBA Univ, Algeria: Sinc-Nyström methods for Fredholm integral equations on unbounded domains.

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Thank you for your participation
Conference Organizer committee

Online Program
The second day September 18, 2024

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Online parallel Sessions

Time	Session 1: (online) Fuzzy set theory, Non-Classical Logic and Applications+ Related topic **Chairman: Pr. A. Bouchair** **Google meet:** https://meet.google.com/oxy-yjsu-ikr
9h:00-9h:15	**Ghrissi Brahim**,University of Ouargla, Algeria : Existence and Uniqueness of Solutions for Fuzzy Fractional Differential Equations.
9h:15-9h:30	**Bellabes Zineb**, Relizane University, Algeria : Exploring Solutions in Fuzzy Differential Equations: Applications of Tarski's Fixed Point Theorem.
9h:30-9h:45	**Hakim maroua**, University of Setif 1, Algeria : An approximation approach to solve a fuzzy multi-index fixed charge transportation problem.
9h:45-10h:00	**Mekkaoui Farida**, University of Batna 2, Algeria : Polar Decomposition and Closed Range operators.
10h:00-10h:15	**Meneceur Maroua**, University of El-oeud, Algeria : COMMON FIXED POINT FOR GENERALIZED WEAKLY EXPANSIVE MAPPINGS IN QUASI PARTIAL METRIC SPACES.
10h:15-10h:30	
Time	**Chairman: Dr. Zoheir Chebel**
10h:30-10h:45	**Diabi Louiza**, University of Oum El Bouaghi, Algeria : Nonlinear Dynamics of Algebraic Symmetry Difference Equation.
10h:45-11h:00	**MOUHOUS Amirouche**, University of Bejaia, Algeria : Existence of fixed points for classes of operators via the fixed-point index on cones of Banach spaces
11h:00-11h:15	**Bouchair Abderrahmane**, University of jijel, Algeria : On the baireness of function spaces with set open topologies.
11h:15-11h:30	**Ghorab Elhouari**, University of Mascara, Algeria : The algebra of Rapidly decreasing generalized function AND FOURIER ANALYSIS.
11h:30-11h:45	**Ait-Amrane N. Rosa**, University of Medea, Algeria : Some Algebraic Properties on Unrestricted Generalized Horadam Numbers.
11h:45-12h:00	**Dadouche Khadidja**, University of Oran1, Algeria : Around Hilbert's Seventh Problem.

Time	
12h:00-12h:15	**Soheyb Milles**, Univ Center of Barika, Algeria : More on neutrosophic topological spaces.
Time	**Session 2:** (online) Number Theory and Arithmetic **Chairman: Dr. Soheyb Milles** **Google meet:** https://meet.google.com/sje-tjdi-air
9h:00-9h:15	**Goy Taras**, Vasyl Stefanyk Precarpathian National University, Ukraine : On connection between the Oresme numbers and well-known number sequences.
9h:15-9h:30	**Mittou Brahim**, University of Ouargla, Algeria : An Identity for Sum Related to Bernoulli Numbers.
9h:30-9h:45	**Moussaoui Khadidja**, USTHB University, Algeria : The D(4)-triples of Pell Numbers.
9h:45-10h:00	**Zerroug Hassina**, University of Jijel, Algeria : Generating and symmetric functions with special numbers and polynomials.
10h:00-10h:15	**Harrouche Nesrine**, University of jijel, Algeria : Convolutions involving Genocchi numbers and polynomials.
10h:15-10h:30	
Time	**Chairman: Dr. D. Benterki**
10h:30-10h:45	**Amroune Zahra**, University of Msila, Algeria : Representation of unlimited Gaussian integers: Gaussian Fibonacci and Lucas numbers.
10h:45-11h:00	**Benamira Wissem**, University of Jijel, Algeria : Generating functions of the binary product of generalized Tribonacci numbers with some numbers.
11h:00-11h:15	**Labiod Imane**, University of Jijel, Algeria : Symmetric Functions of Cubic Products of some Special Polynomials.
11h:15-11h:30	**Saba Nabiha**, University of Jijel, Algeria : Odd and even generating functions and bivariate balancing polynomials.
11h:30-11h:45	**Boudellal Abdelkader**, University of khemis miliana, Algeria : Mordell-Tornheim Zultiple Zeta Values at Non-positive Integers.
11h:45-12h:00	**Seffah Safia**, USTHB University, Algeria : On the solution of the Diophantine equation $P_n^{(k)} P_m^{(k)}=2^a\pm 1$.
12h:00-12h:15	**TIACHACHAT Meriem**, USTHB University, Algeria : Some Identities Involving Partial Bell Polynomials.
12h:15-12h:30	**HADJ BENELEZAAR IMANE,** USTHB University, Algeria : Champion numbers related to the Möbius function

12 h :30-12 :45 12 :45 : 13 :0	**Laid Elkhiri,** Tiaret University,Algeria: Some Super-Congruences Involving Harmonic Numbers and Inverse Binomial Coefficients **Abdelkader benyattou,** University of Djelfa, Algeria: A note on the period of some sequences of numbers modulo a prime number

Online parallel Sessions

Time	Session 3: (online) Group theory +Coding Theory and Cryptography **Chairman: Pr. Bernard De Baets + Pr. Lemnaouar Zedam** **Google meet:** https://meet.google.com/msx-dirh-wvv
9h:00-9h:30 9h:30-9h:45	**Bijan Davvaz**, Yazd University, Iran : On several types of algebraic hypestructures: hupergroups, polygroups and hyperrings. **Mihai-Silviu Lazorec,**"Alexandru Ioan Cuza" University, Romania : Element orders in extra special groups
9h:45-10h:00 10h:00-10h:15 10h:15-10h:30	**Fatemeh Mohammadi Aghjeh Mashhad,** Islamic Azad University of Parand, Iran : A homological dimension for homologically finite complexes **Moussaoui Hakim**, University of Bejaia, Algeria : On Deformation of Superbialgebras and Supermodules. **Delhoum Amina**, USTHB University, Algeria : DNA codes over the ring $F_8 + vF_8$
10h:30-10h:45	**Benhelal Zoulikha**, University of Setif 1, Algeria : On minimal non (locally finite)-by-Engel groups.
10h:45-11h:00 11h:00-11h:15	**Belarbi Mansour**, University of Mostganem, Algeria : The Heisenberg group energy and bienergy functional with some algebric properties. **Bellil Amina,** USTHB University, Algeria : Linear codes over rings
11h:15-11h:45	**Makhlouf Abdenacer**, University Haute-Alsace, Mulhouse (UHA), France: An overview of Hom-type and BiHom-type algebraic structures.
11h:45-12h:00	**Zitouni Amel**, ENS Setif, Algeria : Cofinitary locally finite barely transitive groups.
12h:00-12h:15	**Aikous Adem**, University of BBA, Algeria : On the quotient Rota-Baxter Hom-group.
12h:15-12h:30	**Ahmed Benkhala**, BBA University, Algeria : On the Bihom group structure.
	Sara Benatmane, USTHB , Algeria Enhanced Cryptographic Security Using DNA Cryptography, Rabin Cryptosystem, OTP, and Fractal

	Online Program The second day September 18, 2024
Time	**Session 4: (online)** Related Topics **Chairman: Pr. Abdelaziz Amroune** **Google meet:** https://meet.google.com/adv-foco-wus
9h:00-9h:15	**Chouader Rima**, University of Setif 1, Algeria: A class of Septic Kolmogorov system with non-algebraic unstable limit cycle.
9h:15-9h:30	**Bezai Assia**, University of Batna 2, Algeria: Novel approaches to Riccati equation solvability using group inverses.
9h:30-9h:45	**Sahraoui Asma**, University Center, Mila, Algeria : Bound states of the Klein Gordon equation with non-central scalar and vector potentials: a modified ring-shaped harmonic oscillator potential.
9h:45-10h:00	**Bouzekria Fahima**, University Center, Mila, Algeria : Complete homogeneous symetric function for the products of certain numbers and polynomials.
10h:00-10h:15	**Bellout Aida**, University Center, Mila, Algeria : Chaos in the discrete fractional sine map.
10h:15-10h:30	*The 4th International Conference On Applied Algebra, ICAA'2024 17-18th September 2024, Barika, Algeria* BREAK TIME
Time	**Chairman: Dr. Omar Barkat**
10h:30-10h:45	**Nasri Ahmed**, University of Jijel, Algeria : D−orthogonal polynomials of Laguerre type.
10h:45-11h:00	**BOUDJELLAL Nawel**, University of Bouira, Algeria : A numerical implementation of a new weighted primal-dual interior-point method for solving LCCO problems.
11h:00-11h:15	**Abdelhadi Soumia**, University of Batna, Algeria : Blow up of hyperbolic equation with variable exponent nonlinearities.
11h:15-11h:30	**Bouzeraa Seyf El Islam**, University Center, Mila, Algeria : Bifurcation and chaos in Quadratic map with fractional order.
11h:30-11h:45	**MAKRELOUFI AbedHight**, ENS,Mostaganem, Algeria : Some results About Controllability for Singular Systems Via Its Equivalent Form.
11h:45-12h:00	**Hamza Boughambouz**, Msila University, Algeria : Bandler-Kohout compositions of ternary relations.
12h:00-12h:15	**Mounir Redjouh,** University Center of Barika, Algeria Existence result of positive solutions for a reaction–diffusion system
12h:15-12h:30	**Abderrahim Guemmaz,** University Center of Barika, Algeria Primal-Dual Interior Point Method for LCP Based on a New Kernel Function with a logarithmic Barrier Term.

12h:30-12h:45	**Ahmed ABBASSI,** ENS Bousaada, Algeria: **Les Équations algébriques dans la civilisation arabo-Musulmanes entre l'IX$_e$- XIII$_e$ siècle**

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