**EMS** Conference

### **Emil Artin International Conference**



Dedicated to the 120<sup>th</sup> Anniversary of Emil Artin

(03.07.1898-20.12.1962)

Yerevan, the Republic of Armenia,

May 27-June 2, 2018.



# PROGRAM



Supported by the European Mathematical Society and

International Mathematical Union

Yerevan 2018

## Monday May 28, 2018. Morning Session

8:00	_ 9	9:00	Registration (Yerevan State University, Alex Manoogian 1, Department of Mathematics and Mechanics, Room 106)
			Room A
9:00	- !	9:15	Opening
			Chair: Yuri Movsisyan (Armenia)
9:15	- 9	9:45	Efim Zelmanov Groups satisfying polynomial identities
9:45	_	10:15	Alexey Parshin Reciprocity laws and zeta-functions (from Emil Artin to Robert Langlands)
10:15	_	10:45	Jonathan Smith Artin's Induction Theorem and quasigroup characters
10:45	_	11:15	Coffee Break
			Chair: Alexander Guterman (Russia)
11:15	_	11:45	Mikhail Volkov Local finiteness for Green's relations in semigroup varieties
11:45	_	12:15	Aleksandar Krapež Quadratic functional equations on quasigroups and related systems
12:15	_	12:45	Tullio Ceccherini-Silberstein Algebraic ideas in dynamical systems
12:45		14:15	Lunch

### Monday May 28, 2018. Afternoon Session

	Room A
	Chair: László Szalay (Slovakia)
14:15 – 14:45	Hanamantagouda Sankappanavar Implication Zroupoids: An Abstraction from De Morgan Algebras
14:45 – 15:15	Anna Romanowska Barycentric algebras and beyond
15:15 – 15:45	Armen Sergeev Quantum calculus
15:45 – 16:00	Coffee Break

	Room A	Room B
	Chair: Victor Shcherbacov (Moldova)	Chair: Mariam Haroutunian (Armenia)
16:00 - 16:20	Sevak Mkrtchyan Rigidity, graphs and Hausdorff dimension	Alexey Yashunsky On subalgebras of probability distributions over finite rings with unity
16:20 - 16:40	<b>Vijay Kumar Bhat</b> Matrix rings as one sided $\sigma - (S, 1)$ rings	Marwan Said Abualrub Long range diffusion-reaction model on population dynamics
16:40 – 17:00	<b>A. Admiralova, V. Beniash-Kryvets</b> On varieties of two dimensional representations of a family of one-relator groups	<b>Doost Ali Mojdeh</b> An extension of Roman dominating function
17:00 – 17:20	<b>Nikolay Kaleyski</b> Changing Points of APN Functions	Kamal Aghigh A survey on residual transcendental extensions of valuations
	Welcome party	
10.00 10.00	"Courseurs"	

18:00 – 19:00 "Caucasus"

### Tuesday May 29, 2018. Morning Session

	Room A
	Chair: Daniele Mundici (Italy)
9:00 - 9:3	Ivan Shestakov   Speciality problem for Malcev algebras
9:30 - 10:0	0 Yuri Movsisyan Varieties and hypervarieties of algebras and new discrete mathematical functions
10:00 - 10:3	0 Alexander Guterman Positive resolution of Krauter conjecture on permanents
10:30 - 11:0	0 Groups of homeomorphisms of the line and the circle. Criteria for almost nilpotency
11:00 – 11:3	Coffee Break
	Chair: Anna Romanowska (Poland)
11:30 - 12:0	0 Ara Basmajian The type problem and the geometry of Riemann surfaces
12:00 - 12:3	0 Victor Shcherbacov On Bol-Moufang type identities
12:30 - 13:0	0 Victor Pambuccian Can geometry be reduced to algebra?
13:00 – 13:3	0 Denys Pommeret Gaussianity test for mixture component distribution
13:30 – 15:0	0 Lunch

## Tuesday May 29, 2018. Afternoon Session

#### Room A

	Chair: Ara Basmajian (USA)
15:00 – 15:30	Anatoly Vershik Asymptotical properties of the random walks on the discrete groups: absolute and Poisson–Furstenberg boundaries
15:30 - 16:00	Pavel Gevorgyan Dimension of shape maps
16:00 - 16:30	<b>László Szalay</b> Algorithm for solving the equations $2^n \pm \alpha \cdot 2^m + \alpha^2 = x^2$
16:30 - 17:00	Megerdich Toomanian On symmetric product finsler spaces
17:00 - 17:30	Coffee Break

	Room A	Room B
	Chair: J. D.H. Smith (USA)	Chair: V. Arzumanian (Armenia)
17:30 – 17:50	<b>Sergey Davidov</b> Parastrophically Uncancellable Equations with Division and Regular Operations	<b>V. Byrdin</b> On new basis properties of regular and real functions: parity, antiholomorphy, abstract afinite <b>C</b> -tree and polyholomorphy
17:50 – 18:10	Volodymyr Gavrylkiv Automorphism groups of superextensions of semigroups	<b>Majid Erfanian</b> Using of 2D Haar wavelets for solving of mixed 2D nonlinear Fredholm Volterra integral equation
18:10 – 18:30	<b>Evgeny Gordon</b> Finite approximations of topological algebraic structures	<b>Nelly Ajabyan</b> Description of chaotic patterns in models of coupled oscillators in terms of mutual information
18:30 – 18:50	Jaroslav Guričan Distributive lattices with strong endomorphism kernel property as direct sums	Artur Ishkhanyan Generalized hypergeometric solutions of the heun equations
18:50 - 19:10	Heghine Ghumashyan Hyperidentities of associativity in semigroups	

### Wednesday May 30, 2018. Morning Session

	Room A
	Chair: Mikhail Volkov (Russia)
9:00 - 9:30	Daniele Mundici Artinian AF C*-algebras whose Murray-von Neumann order of projections is a lattice
9:30 - 10:00	Aram Arutyunov Properties of Surjective Real Quadratic Maps
10:00 - 10:30	Nikolay Romanovskiy Rigid solvable groups. Algebraic geometry and model theory
10:30 - 11:00	Semyon Nigiyan On arithmetical functions with indeterminate values of arguments
11:00 – 11:30	Coffee Break
	Chair: Victor Pambuccian (USA)
11:30 - 12:00	Grigor Barsegian On some trends and principles related to arbitrary meromorphic or analytic functions in a given domain
12:00 - 12:30	Hakop Hakopian, Vahagn Vardanyan On the usage of lines in <i>GC<sub>n</sub></i> -sets
12:30 - 13:00	Hayk Melikyan Restricted simple Lie algebras
13:00 – 13:30	Ashot Gevorkyan Formation of Massless Bose Particles with Spins 1 as a Result of Random Fluctuations of Vacuum Fields
13:30 - 14:30	Lunch

### Wednesday May 30, 2018. Afternoon Session

	Room A		Room I	В
	Chair: Denys Pommeret (France)		Chair: (	Chung-Chun Yang (China)
14:30 – 14:50	Joshua Zelinsky Counting ray class characters and the artin primitive root conjecture		Alla Kuznetsova On a class of extensions by compact operators	
14:50 – 15:10	<b>Diana Davidova</b> Magic action of o-polynomials and EA-equivalence of Niho bent functions		Mahmood Parsamanesh A discrete-time SIVS epidemic model with constant population size and standard incidence rate	
15:10 – 15:30	Abdus Salam, Wajih Ashraf, Noor Mohammad Kl On Sandwich Sets In Legal Semigroups	Ashraf, Noor Mohammad Khan Yuliya Legal Semigroups Counti		Zelenyuk ng Symmetric Bracelets
15:30 – 16:00	Coffee Break			
Room A				Room B
	Chair: Sevak Mkrtchyan (USA)			Chair: Aram Arutyunov (Russia)
16:00 - 16:20	Hrant Hakobyan Extremal length and some applications in Teichmuller theory and Hyperbolic geometry	16:00 -	- 16:20	Vadim Kaimanovich Circular slider graphs
16:20 - 16:40	Shant Navasardyan The Independence of Axioms of Hypergroup over Group	16:20 –	- 16:40	<b>N. Aharonyan</b> Two random points in a convex domain
16:40 – 16:55	Albert Gevorgyan On Medial Structures	16:40 -	- 17:00	Samvel Darbinyan Some remarks on Manoussakis' conjecture for a digraph to be hamiltonian
16:55 – 17:10	<b>Davit Shahnazaryan</b> Invertible binary algebras isotopic to a group or an abelian group	17:00 –	- 17:20	<b>G. Petrosyan, L. Ter-Vardanyan, A. Gaboutchian</b> Description of the biometric identification process of teeth with the help of Colored Petri Nets
17:10 – 17:25	<b>G. Kirakosyan</b> Interassociativity via hyperidentities	17:20 –	17:40	H. Aslanyan On endomorphisms of CC groups
17:25 – 17:45	<b>R.Gevorgyan, N. Margaryan</b> Existence of Maximum Entropy Problem Solution in a General N-Dimensional Case			

### Thursday May 31, 2018. Excursion

9:00 - 17:00	Echmiadzin, Matenadaran, Garni,Geghard
19:00 - 22:00	Conference dinner, "Caucasus"

## Friday June 1, 2018. Morning Session

	Room A		
	Chair: Ivan Shestakov (Brazil)		
9:00 - 9:30	Lilya Budaghyan On Optimal Cryptographic Functions		
9:30 - 10:00	Pavol Zlatoš A Uniform Stability Principle for Dual Lattices		
10:00 - 10:30	Chung-Chun Yang Nevanlinna's value distribution theory and its applications		
10:30 - 11:00	Boris Vernikov On modular and cancellable elements of the lattice of semigroup varieties		
11:00 - 11:30	Coffee Break		
	Chair: Armen Sergeev (Russia)	Poster Presentation	
11:30 – 11:50	<b>Robert Mnatsakanov</b> On recovering the compositions of two distributions from moments: Some applications	Hakob Israyelyan About medial pairs of continuous and strictly monotonic binary functions	
11:50 – 12:10	V. Mirzoyan Geometry of a class of semisymmetric submanifolds	Mihran Papikian Drinfeld-Stuhler modules	
12:10 - 12:30	<b>Onise Surmanidze</b> Universal Topological Abelian Groups	Arman Darbinyan Word and conjugacy problems in finitely generated groups	
12:30 – 12:50	Samvel Haroutunian On special class of submanifolds in Pseudoeuclidean Rashevsky space $E_n^{2n}$	Gevorg Mnatsakanyan Estimates for Strong-Sparse Operators	
12:50 – 13:10	Ara Alexanian, A. Minasyan An Upper Bound for the Complexity of Coset Covering of Subsets in a Finite FileId	<b>Liana Abrahamyan</b> Characterization of hyperidentities defined by the equalities ((x, y), u, v) = (x, (y, u), v) and $((x, y), u, v) = (x, y, (u, v))$	
13:10 – 14:30	Lunch		

### Friday June 1, 2018. Afternoon Session

	Room A	
	Chair: Vadim Kaimanovich (Canada)	Poster Presentation
14:30 - 14:50	<b>Rafik Aramyan</b> The sine representation of a convex body	Vazgen Mikayelyan The Gibbs phenomenon for Stromberg systems
14:50 – 15:10	Yuri Hakopian Computation of the Moore-Penrose Inverse for Bidiagonal Matrices	<b>G. Sahakyan</b> About some bilinear forms on the linear spaces of matrices
15:10 – 15:30	E. Haroutunian, P. Hakobyan, A. Yesayan, N. Harutyunyan Multiple hypotheses optimal testing with rejection option for many objects	<b>E. Yeghiazaryan</b> Asymptotic estimates of the number of solutions of systems of equations with determinable partial boolean functions
15:30 – 15:50	<b>M. Haroutunian, K. Mkhitaryan, J. Mothe</b> Divergence measures for community detection evaluation	Armen Avagyan New investigating method in the problems hall and sum of three cubes
15:50 – 16:10	Alexander Bufetov Conditional measures of determinantal point processes: the gibbs property and the completeness of reproducing kernels	
16:10 – 16:40	Coffee Break	
	Chair: Onise Surmanidze (Georgia)	
16:40 - 17:00	Victor Arzumanian, Suren Grigoryan Reduced C*-algebra of a group graded system	
17:00 – 17:20	Anatolii Zhuchok On free <i>k</i> -nilpotent <i>n</i> -tuple semigroups	
17:20 – 17:40	V. Ohanyan Orientation-dependent distributions of cross-sections	
17:40 - 18:00	<b>T. Harutyunyan</b> About some problems for regular differential operators	
18:00 – 18:20	<b>M. Karakhanyan</b> About algebraic equation with coefficients from the $\beta$ -uniform a	llgebra $C_{\beta}(\omega)$
18:20 – 18:40	Closing remarks	