CAUCASIAN MATHEMATICS CONFERENCE

CMC I

PROGRAM

TBILISI, SEPTEMBER 5 and 6, 2014
ORGANIZERS

The first Caucasian Mathematics Conference (CMC I) is organized under the auspices of the European Mathematical Society and the cooperation of the Armenian, Azerbaijan, Georgian, Iranian, Russian and Turkish Mathematical Societies.

STEERING COMMITTEE

Carles Casacuberta (ex officio; Chair of the EMS Committee for European Solidarity), Mohammed Ali Dehghan (President of the Iranian Mathematical Society), Roland Duduchava (President of the Georgian Mathematical Union), Tigran Harutyunyan (President of the Armenian Mathematical Union), Misir Jamayil oglu Mardanov (Representative of the Azerbaijan Mathematical Union), Marta Sanz-Sole (ex officio; President of the European Mathematical Society), Armen Sergeev (Representative of the Moscow Mathematical Society and EMS), Betül Tanbay (President of the Turkish Mathematical Society).

LOCAL ORGANIZING COMMITTEE

Buchukuri Tengiz, Davitashvili Tinatin (Scientific Secretary), Duduchava Roland (Chairman), Eliashvili Merab, Natroshvili David (Vice Chairman), Sigua Levan.

CONFERENCE SECTIONS

- Algebra and Model Theory
  Chairmans Tuna Altipel and Ayşe Berkman
- Algebra and Topology
  Chairman Tornike Qadeishvili
- Analysis
  Chairman Vakhtang Kokilashvili
- Differential Equations and Applications
  Chairman David Kapanadze
- Numerical Analysis and Mathematical Modeling
  Chairman Temur Jangveladze
• Probability and Statistics
  Chairman Vaja Tarieladze

PLENARY SPEAKERS
Mohhamad Sal Moslehian, Ferdowsi University of Mashhad, Iran,
Garib N. Murshudov, MRC, Cambridge,
Dmitri Orlov, Steklov Institute, Moscow, Russia,
Samson Shatashvili, Trinity College, Dublin, Ireland,
Leon Takhtajan, University of Stony Brook, USA,
Cem Yalçın Yıldırım, Bogazici University, Istanbul, Turkey.

YOUNG INVITED SPEAKERS
Artur Kobelyan, Yerevan State University, Armenia
Vardan Tepoyan, Institute of Mathematics, National Academy of
Sciences of Armenia
Rovshan Bandaliyev, Institute of Mathematics and Mechanics of NAS
of Azerbaijan
Ali Huseynli, Institute of Mathematics and Mechanics of NAS of
Azerbaijan
George Tephnadze, Tbilisi State University & Lulea University of
Technology, Georgia
Medea Tsaava, A.Razmadze Mathematical institute,Tbilisi State
University, Georgia
Majid Soleimani-damaneh, University of Tehran, Iran
Alireza Amini Harandi, Sharkord University, Iran
Sergey Gorchinskiy, Steklov Mathematical Institute, Russia
Iulia Beloshapka, Lomonosov Moscow State University, Russia
Kazım Büyükboduk, Koç University, Turkey
Özgün Ünlü, Bilkent University, Turkey
SCHEDULE OF THE CONFERENCE

4 September, Thursday

Arrival day to Tbilisi

1500-1900 - Registration in National Academy of Sciences

5 September, Friday

830-930 Registration

930-1000 Opening of the conference

Room 1 Chairman: Duduchava Roland

1000-1050 Shatashvili Samson, Supersymmetric gauge theories and the quantisation of integrable systems

1050-1120 Coffee break

Room 1 Chairwoman: Tanbay Betul

1120-1210 Yildirim Cem Yalçin, Small gaps between primes the gpy method and recent advancements over it

1220-1310 Murshudov Garib N, Some application of mathematics to structural biology

1310-1500 Dinner

1500-1700 Parallel Sessions AMT 1, AMT 3, AT 1, AT 3, AT 5, AT 7, AN 1, AN 3, AN 5, DEA 1, DEA 3, DEA 5, NAM.1, PS 1

1700-1730 Coffee break

1730-1900 Parallel Sessions AMT 2, AMT 4, AT 2, AT 4, AT 6, AT 8, AN 2, AN 4, AN 6, DEA 2, DEA 4, DEA 6, NAM 2, PS 2
20^{00} : 23^{00}  Conference Dinner

6 September, Saturday

Room 1  Chairman: Sergeev Armen
8^{30} : 9^{30}  Registration
9^{30} : 10^{20}  Takhtajan Leon A., On Bott-Chern and Chern-Simons characteristic forms
10^{30} : 11^{20}  Orlov Dmitri, Categories in geometry and physics: mirror symmetry, d-branes and Landau-Ginzburg models
11^{20} : 11^{50}  Coffee break

Room 1  Chairman: Harutyunyan Tigran
11^{50} : 12^{40}  Moslehian Mohammad Sal, Recent developments in operator inequalities
12^{40} : 15^{00}  Dinner
15^{00} : 17^{00}  Parallel Sessions  AMT 5,
                AT 9, AT 11, AT13,
                AN 7, AN 9, AN 11,
                DEA 7, DEA 9, DEA 11,
                NAM 3, NAM 5, PS 3
17^{00} : 17^{30}  Coffee break
17^{30} : 19^{30}  Parallel Sessions  AT 10, AT 12, AT 14,
                AN 8, AN 10,
                DEA 8, DEA 10,
                NAM 4, PS 4

Section: Algebra and Model Theory /AMT

September 5, Friday

AMT 1  Chairwoman: Berkman Ayşe
Room 1.1
15\textsuperscript{00} : 15\textsuperscript{30} \textbf{Ahmadidelir Karim}. On the characterization of finite Moufang loops by their non-commuting graph

15\textsuperscript{30} : 16\textsuperscript{00} \textbf{Kemoklidze Tariel}. On the full transitivity of the cotorsion hull of a separable p-group

16\textsuperscript{00} : 16\textsuperscript{30} \textbf{Kuzucuoğlu Mahmut}. Automorphisms of direct limits of symmetric groups

16\textsuperscript{30} : 17\textsuperscript{00} \textbf{Pakravesh Yaghub, İranmesh A}. Normal edge-transitive Cayley graphs on non-abelian groups of order $4p^2$, where $p$ is a prime number

17\textsuperscript{00} : 17\textsuperscript{30} Coffee break

AMT 2
Room 1.1

17\textsuperscript{30} : 18\textsuperscript{00} \textbf{Hanoymak Turgut}. Key exchange protocols over group rings

18\textsuperscript{00} : 18\textsuperscript{30} \textbf{Aydın Neset, Erdoğan Ali, Makharadze Shota}. On some properties of complete semigroups of binary relations defined by semilattices of the class sum$_2(X.10)$

AMT 3
Room 1.2

15\textsuperscript{00} : 15\textsuperscript{30} \textbf{Pierce David}. Compactness

15\textsuperscript{30} : 16\textsuperscript{00} \textbf{Kowalski Piotr}. Recovering a field from a one-dimensional structure

16\textsuperscript{00} : 16\textsuperscript{30} \textbf{İkeda İlhan}. On the local epsilon-factors of Weil representations

16\textsuperscript{30} : 17\textsuperscript{00} \textbf{Hosseini Arezoo}. Relation Between Cohomology of Topological Local Groups and Reduced Cohomology Topological Group

17\textsuperscript{00} : 17\textsuperscript{30} Coffee break
AMT 4
Room 1.2 Chairman: Altinel Tuna
17^{30}: 18^{00} Devyatov Rostislav. Equivariant infinitesimal deformations of algebraic threefolds with an action of an algebraic torus of complexity 1
18^{00}: 18^{30} Beyarslan Ö. Groups appearing in theories of pseudo-finite fields
18^{30}: 19^{00} Laohakosol Vichian, Komatsu Takao, Sripayap Angkana. Values of Cantor-like analytic functions at rational points

September 6, Saturday

AMT 5 Room 1 Chairman: Altinel Tuna
15^{00}: 15^{30} Momtahan Ehsan. On some categorical aspects of zero-divisor graphs
15^{30}: 16^{00} Shamsi Y. M. A positive cone in p-operator tensor product of Herz algebras
16^{00}: 16^{30} Pinthira Tangsupphathawat. Discriminative properties of generalized Möbius functions
16^{30}: 17^{00} Djahangiri M. Approximating of domination number via relaxation techniques
17^{00}: 17^{30} Coffee break

Section: Algebra and Topology / AT

September 5, Friday

AT 1, Alg Room 2.1 Chairman: Dalalyan Samuel
15^{00}: 15^{30} Büyükboduk Kazim (Young Invited Speaker). The
Birch and Swinnerton-Dyer conjecture: p-adic vs complex

15:30 - 16:00 **Fialowski Alice.**

16:00 - 16:30 **Fatemah Ayatollah Zadeh Shirazi.** On induced hyperspace topological transformation semigroups

16:30 - 17:00 **Kadeishvili Tornike.** A(∞)-algebra structure in homology and its applications

17:00 - 17:30 Coffee break

AT 2, Alg Room 2.1

Chairman: Dalalyan Samuel

17:30 - 18:00 **Cangul Ismail.** groups of some discrete groups and some useful methods

18:00 - 18:30 **Dalalyan Samuel.** An algorithm for determining the irreducible polynomials over finite fields

18:30 - 19:00 **Dalalyan Samuel.** Hypergroups over the group and applications

19:00 - 19:30 **Motlaghian S. M., Armandnejad Ali.** Hadamard majorization and its linear preservers on Mn

AT 3, Top Room 2.2

Chairman: Baladze Vladimer

15:00 - 15:30 **Beloshapka Iuliya (Young Invited Speaker).** Twistor approach for harmonic 2-spheres in a loop space

15:30 - 16:00 **Baladze Vladimer.** The (co)shape and (co)homological properties of continuous maps

16:00 - 16:30 **Neda Ebrahimi, Jamshidi Mina.** Homomorphism on local top spaces

16:30 - 17:00 **Tsinaridze Ruslan.** On equivariant fiber shape theory
17:00 - 17:30 Coffee break

AT 4, Top Room 2.2
Chairman: Baladze Vladimer
17:30 - 18:00 Turmanidze Lela. On Čech’s type continuous functors
18:00 - 18:30 Salimov Arif.
18:30 - 19:00 Aramyan Rafik. A representation for convex bodies

AT 5, Graphs Room 2.3
Chairman: Alikhani Saeid
15:00 - 15:30 Yarahmadi Zahra. Some results of one-alpha descriptor of graphs
15:30 - 16:00 Alikhani Saeid. Counting the number of some kind of dominating sets of graphs
16:00 - 16:30 Mahdieh Azari. Various versions of Zagreb indices under some local graph operators
16:30 - 17:00 Loghman Amir. On The Chromatic Number Of Replacement Product Graphs
17:00 - 17:30 Coffee break

AT 6, Graphs Room 2.3
Chairman: Saeid Alikhani
17:30 - 18:00 Salehian Matykolaei Behzad. Structures of Diophantine Graphs
18:00 - 18:30 Falahati Nezhad Farzaneh. Lower bounds on the multiplicative Zagreb indices of graph operations

AT 7, Geo Room 2.4
Chairman: Kaledin Dmitry
15:00 - 15:30 Kaledin Dmitry. Hochschild-Witt homology and
syntomic K-theory

15\textsuperscript{30} : 16\textsuperscript{00} \textbf{Yusuf Abu Muhanna}. Hyperbolic metric and bohr's phenomenon

16\textsuperscript{00} : 16\textsuperscript{30} \textbf{Jamshidi Mina, Neda Ebrahimi}. A new causal ladder in general relativity

16\textsuperscript{30} : 17\textsuperscript{00} \textbf{Pashaie Firooz}. On r-stability index of spacelike hypersurfaces in the de Sitter space

17\textsuperscript{00} : 17\textsuperscript{30} Coffee break

\textbf{AT 8, Geo Room 2.4} Chairman: Kaledin Dmitry

17\textsuperscript{30} : 18\textsuperscript{00} \textbf{Bajravani Ali}. A Prym-Torelli Theorem for General Prym-Canonical Curves of Genus g =7

18\textsuperscript{00} : 18\textsuperscript{30} \textbf{Hajibadali Ali}. Three-Dimensional Homogeneous Contact Non-Sasakian Lorentz Manifold

18\textsuperscript{30} : 19\textsuperscript{00} \textbf{Heidari Nikrooz}. Decomposition of Euclidean nearly-kahler submanifolds

19\textsuperscript{00} : 19\textsuperscript{30} \textbf{Mahdi Miri}. The title will be announced later

\textbf{September 6, Saturday}

\textbf{AT 9, Alg Room 2.1} Chairman: Dalalyan Samuel

15\textsuperscript{00} : 15\textsuperscript{30} \textbf{Gorchinskiy Sergey (Young Invited Speaker)}. Loday symbol, Countou-Carrere symbol, and reciprocity

15\textsuperscript{30} : 16\textsuperscript{00} \textbf{Hadi Hooshmand Mohammad}. Class United Grouplikes

16\textsuperscript{00} : 16\textsuperscript{30} \textbf{Solary Maryam Shams}. Sign of Eigenvalues for Toeplitz Matrices

16\textsuperscript{30} : 17\textsuperscript{00} \textbf{Tepoyan Vardan (Young Invited Speaker)}. Isometric representations of Abelian semigroups
17:00:17:30 Coffee break

AT 10, Alg Room 2.1
Chairman: Dalalyan Samuel
17:30:18:00 Rashid Zaare-Nahandi. Minimal free resolution of monomial ideals

18:00:18:30 Bokelavadze Tengiz, Amaglobeli Mikheil. Some Results of the Theory of Exponential R-Groups

18:30:19:00 Armandnejad Ali, g-tridiagonal majorization and circulant majorization on Mn;m

19:00:19:30 Khanehgir Mahnaz, Hasanvand F. Dual multi 2-normed space

AT 11, Apps Room 2.2 Chair: Karacay Timur
15:00:15:30 Amikishiyev Vagif, Mehdiyev T., Shabiyev J., Murshudov G.N. A Search for a Fragment Space: Organization and Use of Prior Structural Knowledge

15:30:16:00 Bastani Mehdi, Nasser Aghazadeh. On the generalized Hermitian and skew-Hermitian splitting iterative method for image restoration

16:00:16:30 Vildan Çetkin, Halis Aygün. On L-soft merotopies

16:30:17:00 Fakharzadeh A.J., Alimorad H.D. A theoretical measure technique for determining 3-D symmetric optimal shapes with a given center of mass

17:00:17:30 Coffee break

AT 12, Apps Room 2.2
Chair: Karacay Timur
17:30:18:00 Karacay Timur. Introducing Methods Of Analysis Into Fuzzy Systems

18:00:18:30 Taherkhani Bahman. Various chaotic generalized shift
dynamical systems

18^{30} : 19^{00} Jamshidi Mina, Neda Ebrahimi. Action of fuzzy top spaces on fuzzy manifolds

19^{00} : 19^{30} Sirous Moradi. Introducing Methods Of Analysis Into Fuzzy Systems

AT 13, Geo Room 2.3
Chairman: Movsisyan Yuri

15^{00} : 15^{30} Mohammad Reza Oboudi. On the location of roots of domination polynomials

15^{30} : 16^{00} Ambartzumian Rouben. Lifting Hilbert's fourth problem to three dimensions

16^{00} : 16^{30} Movsisyan Yuri. Free algebras with hyperidentities of lattice varieties

16^{30} : 17^{00} Mohammad Ilmakchi. Hypersurfaces of Kenmotsu space form

17^{00} : 17^{30} Coffee break

AT 14 Room 2.3
Chairman: Gogishvili Guram

17^{30} : 18^{00} Alireza Amini Harandi (Young Invited Speaker). Fixed Point theory for generalized nonexpansive mappings

18^{00} : 18^{30} Majid Derafshpour. Some Fixed Point Results in Boolean Metric Spaces

18^{30} : 19^{00} Gogishvili Guram. New results On Estimation Of Singular Series Corresponding To Positive Quaternary Quadratic Forms
Poliektova-Nikoladze Zinaida. On The Distribution of Prime Numbers

Section: Analysis / AN

September 5, Friday

AN 1
Room 3.1

Chairman: Gol’dshein Vladimir

Kobelyan Arthur (Young Invited Speaker). Some property of Fourier series with respect by orthogonal systems

Burenkov Victor, Gol’dshein Vladimir, Ukhlov

15:00 – 16:00


Kokilashvili Vakhtang, Boundedness Criteria for

16:00 – 16:30

Harmonic Analysis Basic Integral Operators in Weighted Iwaniec-Sbordone Spaces

Meskhi Alexander, Two-Weight Criteria for Riesz Potentials on Cones of Radially Decreasing Functions

17:00 – 17:30

Coffee break

AN 2
Room 3.1

Chairman: Ephremidze Lasha

Beyaz Basak Koca, Invariant Subspaces of the Hardy Space Over the Polydisc

Majid Soleimani-damaneh (Young Invited Speaker).

18:00 – 18:30

On compromise solutions and scalarization in multiobjective optimization

Ephremidze Lasha, Salia Nika, Some Computational Aspects of Novel Matrix Spectral Factorization

19:00 – 19:30
Algorithm

AN 3
Room 3.2
Chairman: Gachpazan Mortaza

Gachpazan Mortaza, Erfanian Madjid, A New Sequential Approach for Solving the Integro-Differential Equation Via Haar Wavelet Bases

Bandaliyev Rovshan (Young Invited Speaker). On a Two-Weighted Inequality for Certain Sublinear Operator in Weighted Musielak-Orlicz Spaces

Sirous Moradi, Generalized Weakly Contraction and its Applications

Sirous Moradi, Fixed Point Theory for Cyclic Mappings

17:00 - 17:30 Coffee break

AN 4
Room 3.2
Chairman: Abolhasani Ali

Tephnadze George (Young Invited Speaker). On the Cesàro Means of Walsh-Fourier Series

Amyari Maryam, Generalized Fredholm operator in locally m-convex H* algebras

Abolhasani Ali, Two different approaches in prediction of infinite variance ARMA(1,1)

AN 5
Room 3.3
Chairman: Bufetov Alexander

Bufetov Alexander, Infinite determinantal measures

Bilalov Bilal, Sadigova Sabina, Frame properties of the
part of a system of exponents with degenerate coefficient in Hardy classes

16^{00} : 16^{30} \textbf{Ebadian Ali,} ON T-Neighborhood on univalent functions

16^{30} : 17^{00} \textbf{Fazli hady Rahmani,} Modeling of a fractional-order economic system

17^{00} : 17^{30} \textbf{Coffee break}

\textbf{September 6, Saturday}

\textbf{AN 7} \hspace{1cm} \textbf{Chairman: Guseynov Yevgeniy}

\textbf{Room 3.1}

15^{00} : 15^{30} \textbf{Ozgun Unlu (Young Invited Speaker). Free Group Actions on Products of Spheres}

15^{30} : 16^{00} \textbf{Guseynov Yevgeniy,} Integration Over Open Sets Boundary

\textbf{Paatashvili Vakhtang,} The Riemann-Hilbert Problem in Smirnov Class with a Variable Exponent and an Arbitrary Power Weight

16^{00} : 16^{30} \textbf{Ghorbanalizadeh Arash,} Approximation in Banach Space by Linear Positive Operators

16^{30} : 17^{00} \textbf{Coffee break}

\textbf{AN 8} \hspace{1cm} \textbf{Chairman: Meskhi Alexander}
Room 3.1

Feysal Hassani, Triangular Operational Matrix Method for Solving the Fractional Order Differential Equation

Tetunashvili Shakro, Tetunashvili Tengiz, On New Summability Methods with a Variable Order

Tetunashvili Shakro, Tetunashvili Tengiz, Uniqueness Theorems for Rademacher Series

Danelia Ana, Kopaliani Tengiz, Gogatishvili Amiran, Local Hardy-Littlewood Maximal Operator in Variable Lebesgue Spaces

AN 9

Room 3.2

Chairman: Harutyunyan Tigran

Harutyunyan Tigran, The Direct and Inverse problems for Sturm-Liouville and Dirac Operators

Kadhavoor Karthikeyan, Certain Classes Of Meromorphic Functions With Respect To $(j, k)$ Symmetric Points

Khanehgir Mahnaz, Khibary M. Moradian, $b$-$H^*$ - algebras

Najafzadeh Shahram, Higher order derivative on meromorphic functions in terms of subordination

Coffee break

AN 10

Room 3.2

Chairman: Tanbay Betul

Rooin Jamal, Alihansi Akram, Comparison of operator Jensen functionals of two convex functions
18:00:18:30 **Sadik Nazim**, Canonical functions of admissible measures in half-plane

**Zeid Samaneh Soradi**, Ali Vahidian Kamyad,

18:30:19:00 Generalized High Order Derivatives of Nonsmooth Functions

---

AN 11
Room 3.3

Chairman: Masoumeh Zeinali

15:00:15:30 **Şeyda Sezgek, Ilhan Dağadur**, \( C_{\lambda} \)-rate sequence space defined by a modulus function

15:30:16:00 **Masoumeh Zeinali**, Numerical solution of fuzzy nonlinear Fredholm integral equation

16:00:16:30 **Mehmet Giyas Sakar**, Numerical Solution of Reaction-Diffusion Equations in the Reproducing Kernel Spaces

16:30:17:00 Coffee break

---

Section: Differential Equations and Applications / DEA

September 5, Friday

DEA 1
Room 4.1

Chairman: Kapanadze David.

15:00:15:30 **Huseynli Ali**, (Young Invited Speaker). On basis properties of root functions of a nonselfadjoint boundary value problem

15:30:16:00 **Tsaava Medea**, (Young Invited Speaker), Duduchava
Roland, Tsutsunava Tamta, Mixed Boundary Value Problem on Hypersurfaces

Mohammad Jahanshahi, Mojtaba Darabadi. Existence and uniqueness of solution of a non-self-adjoint initial-boundary value problem for partial differential equation with non-local boundary conditions

Polat Necat, Dündar Nurhan, Taşkesen Hatice, Pişkin Erhan. Existence of Solutions to Cauchy Problem for Boussinesq Type Equations

Coffee break

DEA 2 Room 4.1
Chairman: Natroshvili David.

Gadjiev Tahir, Aliev Soltan, Rasulov Rafiq. Blow-up Solutions Some Classes of the Nonlinear Parabolic Equations

Shavlakadze Nugzar. The boundary value contact problems of electroelasticity for piezo-elastic half space with cut or elastic inclusion

Mostolizadeh R, Afsharnezhad Z, Shamsara E.

Stability and Hopf bifurcation analysis of a discontinuous HTLV-1 model

DEA 3 Room 4.2
Chairman: Pişkin Erhan.


Mamedov K. R, Akçay Ozge. Necessary and Sufficient Conditions for the Solvability of Inverse Problem for a Class of Dirac Operators
Aliev Akbar. Global existence, asymptotic behavior and blow-up of solutions to Cauchy problem of the system of Klein-Gordon equations with damping terms

Mardanov M. D., Mansimov K. B.. On a Problem of Optimal Control Described by a System of Hyperbolic Integro-Differential Equations

Coffee break

Ahmadkhanlu Asghar, Mohammad Jahanshahi, Existence Results for Non-Linear Fractional Integro-Differential Equation with Non-Local Boundary Conditions

Bitsadze Rusudan, Menteshashvili Marine. On one mixed characteristic problem

Israilov S. Overridden boundary value problems for ODE continuous solutions

Chairman: Sergeev Armen.

Uludag Fatih., Sakar Giyas., Numerical Solution of Euler-Tricomi Equation in the Reproducing Kernel Hilbert Spaces

Zakradze Mamuli, Kublashvili Murman, Sanikidze Zaza, Koblishvili Nana. On approximate solution some Dirichlet generalized problems for cylindrical shells of revolution

Aliyev Yagub. Sturm-Liouville problems with eigenparameter dependent boundary conditions

Alizadeh A., Marasi Hamidreza. Numerical Solution
of the Interrelated Differential Equation of Motion in Phonon Engineering

17\textsuperscript{00} : 17\textsuperscript{30} Coffee break

DEA 6 Room 4.3
Chairman: Chkadua Otar.

Dündar Nurhan, Polat Necat. Mathematical Behavior of a Modified Two-Component Shallow Water Equations

18\textsuperscript{00} : 18\textsuperscript{30} Yildirim Kenan. Optimal vibration control of a smart beam with time delay

18\textsuperscript{30} : 19\textsuperscript{00} Sagitov A. Overridden boundary value problems for ODE with discontinuous solutions

September 6, Saturday

DEA 7 Room 4.1 Chairman: Harutunjan T.

15\textsuperscript{00} : 15\textsuperscript{30} Duduchava Roland. Mellin Convolution Equations in Bessel Potential Spaces

15\textsuperscript{30} : 16\textsuperscript{00} Mohammad Jahanshahi, Aliev Nihan. Boundary value problems for real order differential equations

16\textsuperscript{00} : 16\textsuperscript{30} Castro Luis, Kapanadze David. Crack Impedance-Dirichlet Boundary Value Problems of Diffraction in a Half-Plane

16\textsuperscript{30} : 17\textsuperscript{00} Gadjiev Tahir., Kerimova M. N., Gasanova G. Sh.. The solutions degenerate nonlinear elliptic-parabolic equations

17\textsuperscript{00} : 17\textsuperscript{30} Coffee break

DEA 8 Room 4.1 Chairman: Dehghan Mohammed Ali.

17\textsuperscript{30} : 18\textsuperscript{00} Mohammadpouri Akham, Pashaie Firooz. Generalized Biharmonic Hypersurfaces
Gadjiev Tahir, Sadykhova Nigar. Removable
Singularities of Solutions of Degenerate Nonlinear
Elliptic Equations

Odishelidze Nana, Criado-Aldeanueva Francisko,
Criado Francisco. A Mixed Problem of Plane Elasticity
Theory for Multi-Connected Domain with Partially
Unknown Boundary

**DEA 9**
**Room 4.2**
**Chairman: Polat Necat.**

Pişkin Erhan. Existence, Asymptotic Behavior and
Blow Up of Solutions for the Timoshenko Equation
Saini Anju, Parida M., Katiyar V. K., Mathematical
Modeling of Biofilter used for Air flow through Lung
Tissues

**Roomi Vahid.** Oscillation Theorems for Second-Order
Nonlinear Differential Equations of Generalized Euler
Type

Akhalaia Gia, Manjavidze Nino. On boundary value
problems of the theory of generalized analytic vectors

**DEA 10**
**Room 4.2**
**Chairman: Roomi Vahid.**

Taşkesen Hatice, Polat Necat. Existence of Global
Solutions of an Initial-Boundary Value Problem for a
Nonlinear Timoshenko Equation

Mardanov M. D, Mansimov K. B.. Necessary
Conditions for Optimality of First and Second Order
in a Problem of Optimal Control by Integro-
Differential Equations Under Functional Constraints
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>18:30</td>
<td><strong>Aghazadeh Nasser.</strong> Solving Volterra integro-differential equations by using an expansion method</td>
</tr>
</tbody>
</table>
|      | **DEA 11** Room 4.3  
**Chairman: Sagitov A.** |
| 15:00 | **Marasi Hamidreza.** A modification of differential transform method for solving system of fractional partial differential equations |
| 15:30 | **Atani Y. G., Aghazadeh Nasser.** Edge detection based on wavelet and direction of gradient |
| 16:00 | **Saadatmandi Abbas.** An operational approach for solving fractional-order integro-differential equations |
| 16:30 | **Irandoust-Pakchin S.** Development of fractional differential equation on variable coefficients and its applications on PDE |
| 17:00 | **Coffee break** |

**Section: Numerical Analysis and Mathematical Modeling / NAM**

**September 5, Friday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00</td>
<td><strong>Jangveladze Temur, Kiguradze Zurab.</strong> Semi-Discrete Scheme for One Averaged System of Nonlinear Integro-Differential Equations</td>
</tr>
<tr>
<td>15:30</td>
<td><strong>Chilachava Temur.</strong> Nonlinear Mathematical Model of Bilateral Assimilation Taking into Account Demographic Factor</td>
</tr>
<tr>
<td>16:00</td>
<td><strong>Kereselidze Nugzar.</strong> About Existence of the Solution of the Problem of the First and Second Type of Ratios</td>
</tr>
</tbody>
</table>
Information Technologies of the Parties in the Mathematical Model of Information Warfare

**Tsiklauri Zviad, Peradze Jemal.** On the Convergence of an Iteration Method for a Nonlinear Static Beam Equation

16:30 : 17:00

Coffee break

17:00 : 17:30

**NAM 2**

**Room 5.1**

**Chairman: Kiguradze Zurab**

**Akhmedova D. B., Alieva S. T., Mansimov K. B..** On a Problem of Optimal Control Described by a Difference Analogue of Barbashin Type Integro-Differential Equation

17:30 : 18:00

**Nuriyeva Fidar.** A Multicenter and Bidirectional Nearest Neighbour Algorithm for Traveling Salesman Problem

18:00 : 18:30

**Saini Anju, Parida M., Katiyar V. K..** Mathematical Modeling of Biofilter Used for Air Flow Through Lung Tissues

18:30 : 19:00

September 6, Saturday

**NAM 3**

**Room 5.2**

**Chairman: Chilachava Temur**

**Nuriyeva Fidar, Tezel B. T., Nasiboglu E. A** Mathematical Model of the Multicriteria Limited Bin Packing Problem with Fuzzy Qualities

15:00 : 15:30

**Esmaeili Maryam, Tavakoli Ali.** Construction of Multiple Knot B-Spline Wavelet with Ideal Knots

15:30 : 16:00

**Ghanbari M., Mojdeh D.A, Ramezani M.** Algorithm for Maximum Independent Set in Wireless Network Graphs

16:00 : 16:30

**Ghanbari M., Mojdeh D.A., Ramezani M.** A New Approximation Algorithm for Minimum Connected
Dominating Set in Wireless Sensor Networks

17:00 - 17:30 Coffee break

NAM 4
Room 5.2

Chairman: Kiguradze Zurab

17:30 - 18:00 Jafarzadeh Yousef. Best Solution of Fuzzy Nonlinear Equation

18:00 - 18:30 Jafarzadeh Yousef. The Relative Error Bounds of Fuzzy Linear Systems


Fakharzadeh A.J., Alimorad H.D., A Theoretical Measure Technique for Determining 3-D Symmetric Optimal Shapes with a Given Center of Mass

NAM 5
Room 5.3

Chairman: Kiguradze Zurab

15:00 - 15:30 Khajehnasiri Amir Ahmad. Solving a Model for Recovery of Myocardial Infarction Due Diabetes

15:30 - 16:00 Kheiri Hossein, Mojaver Aida. Modeling the within-host Dynamics of Fractional-Order HIV Infection

16:00 - 16:30 Latif P., Majid Soleimani-damaneh. Robustness and Rate of Optimality in Linear Programming

Shahmorad1 S., Nazari Susahab D. Multistep Collocation Methods for Solving Fractional Differential Equations

17:00 - 17:30 Coffee break

NAM 6
Room 5.3

Chairman: Kiguradze Zurab
Mojtaba Dehghan Banadaki, Polynomial Optimization with Application to Solving Optimal Control Problems

Section: Probability and Statistics /PS

September 5, Friday

PS 1
Room 6
Chairman: Nadaraya Elizbar.
Kvaratskhelia Vakhtang, Tarieladze Vaja, Vakhania
15\(^0\) - 15\(^3\)  Nicholas, Unconditional Convergence of Random Series
15\(^3\) - 16\(^0\)  Sokhadze Grigol, Nadaraya Elizbar. On Integral functionals of density
Glonti Omar, Purtukhia Omar, Some methods of integral representation of nonsmooth Brownian functionals of integral type
16\(^0\) - 16\(^3\)  Arabidze Dimitri, Integral Functionals of the Nadaraya-Watson Regression Function
17\(^0\) - 17\(^3\)  Coffee break

PS 2
Room 6
Chairman: Mania Mikheil.
Chikvinidze Besik, Mania Mikheil. New proofs of some results on BMO martingales using BSDEs
Babilua Petre, Dochviri Besarion, Jaoshvili Vakhtang,
17\(^3\) - 18\(^0\)  On the Reduction and convergence of Payoffs for Partially Observable Stationary Sequences

September 6, Saturday

PS 3
Room 6
Chairman: Purtukhia Omar
Abolhasani Ali, Abolhasani Maryam, Two Different
Approaches in Prediction of Infinite Variance ARMA(1,1)

15:30 : 16:00  
Chelidze Giorgi, Mamporia Badri, Weakly independent random elements, Gaussian case

16:00 : 16:30  

16:30 : 17:00  
Khechinashvili Zaza, About MLE on Infinite Dimensional Hilbert Space

17:00 : 17:30  
Coffee break

PS 4  
Room 6

Chairman: Sokhadze Grigol.

17:30 : 18:00  
Mamporia Badri, Stochastic differential equations in Banach space, generalized solutions and the problem of decomposability

18:00 : 18:30  
Chobanyan Sergey, Kolmogorov rearrangement problem and related inequalities
## List of participants CMC with e-mails

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abolhasnai Ali</td>
<td><a href="mailto:abolhasani_alii@yahoo.com">abolhasani_alii@yahoo.com</a></td>
</tr>
<tr>
<td>Aghazadeh Nasser</td>
<td><a href="mailto:aghazadeh@azaruniv.ac.ir">aghazadeh@azaruniv.ac.ir</a></td>
</tr>
<tr>
<td>Ahmadidelir Karim</td>
<td><a href="mailto:kdelir@gmail.com">kdelir@gmail.com</a></td>
</tr>
<tr>
<td>Ahmadkhanlu Asghar</td>
<td><a href="mailto:ahmadkhanlu@azaruniv.edu">ahmadkhanlu@azaruniv.edu</a></td>
</tr>
<tr>
<td>Ahmedova J.</td>
<td><a href="mailto:akja@rambler.ru">akja@rambler.ru</a></td>
</tr>
<tr>
<td>Akcay Ozge</td>
<td><a href="mailto:ozge.akey@gmail.com">ozge.akey@gmail.com</a></td>
</tr>
<tr>
<td>Akhalaia George</td>
<td><a href="mailto:gia.akha@gmail.com">gia.akha@gmail.com</a></td>
</tr>
<tr>
<td>Ahiev Akbar</td>
<td><a href="mailto:aliyevagil@gmail.com">aliyevagil@gmail.com</a></td>
</tr>
<tr>
<td>Aliev Nihan</td>
<td><a href="mailto:as60akh2005@gmail.com">as60akh2005@gmail.com</a></td>
</tr>
<tr>
<td>Alikhani Akram</td>
<td><a href="mailto:alikhani@iasbs.ac.ir">alikhani@iasbs.ac.ir</a></td>
</tr>
<tr>
<td>Alikhani Saeed</td>
<td><a href="mailto:alikhani@yazd.ac.ir">alikhani@yazd.ac.ir</a></td>
</tr>
<tr>
<td>Aliyev Yagub</td>
<td><a href="mailto:yaliyev@qu.edu.az">yaliyev@qu.edu.az</a></td>
</tr>
<tr>
<td>Alizadeh Abdollah</td>
<td><a href="mailto:alizadeh@bonabu.ac.ir">alizadeh@bonabu.ac.ir</a></td>
</tr>
<tr>
<td>Altinel Tuna</td>
<td><a href="mailto:altinel@math.univ-lyon1.fr">altinel@math.univ-lyon1.fr</a></td>
</tr>
<tr>
<td>Amaglobeli Mikheil</td>
<td><a href="mailto:mikheil.amaglobeli@tsu.ge">mikheil.amaglobeli@tsu.ge</a></td>
</tr>
<tr>
<td>Ambartzumian Rouben</td>
<td><a href="mailto:rouben@instmath.sci.am">rouben@instmath.sci.am</a></td>
</tr>
<tr>
<td>Amikishiyev Vagif</td>
<td><a href="mailto:vamikishiyev@yahoo.com">vamikishiyev@yahoo.com</a></td>
</tr>
<tr>
<td>Amini Harandi Alireza</td>
<td><a href="mailto:aminih_a@yahoo.com">aminih_a@yahoo.com</a></td>
</tr>
<tr>
<td>Amyari Maryam</td>
<td><a href="mailto:amyari@mshdiau.ac.ir">amyari@mshdiau.ac.ir</a></td>
</tr>
<tr>
<td>Arabidze Dimitri</td>
<td><a href="mailto:didagi@gmail.com">didagi@gmail.com</a></td>
</tr>
<tr>
<td>Aramyan Rafik</td>
<td><a href="mailto:rafikaramyan@yahoo.com">rafikaramyan@yahoo.com</a></td>
</tr>
<tr>
<td>Armandnejad Ali</td>
<td><a href="mailto:armandnejad@vru.ac.ir">armandnejad@vru.ac.ir</a></td>
</tr>
<tr>
<td>Ashrafyan Yuri</td>
<td><a href="mailto:yuriashrafyan@ysu.am">yuriashrafyan@ysu.am</a></td>
</tr>
<tr>
<td>Atani Yaser Gholizade</td>
<td><a href="mailto:y.gholizade@azaruniv.ac.ir">y.gholizade@azaruniv.ac.ir</a></td>
</tr>
<tr>
<td>Ayatollah Zadeh Shirazi F.</td>
<td><a href="mailto:fatemah@khayam.ut.ac.ir">fatemah@khayam.ut.ac.ir</a></td>
</tr>
<tr>
<td>Aygün Halis</td>
<td><a href="mailto:halis@kocaeli.edu.tr">halis@kocaeli.edu.tr</a></td>
</tr>
<tr>
<td>Azari Mahdieh</td>
<td>m_ <a href="mailto:azari82@yahoo.com">azari82@yahoo.com</a></td>
</tr>
<tr>
<td>Babaei Esmaeil</td>
<td><a href="mailto:e.babaei64@gmail.com">e.babaei64@gmail.com</a></td>
</tr>
<tr>
<td>Babilua Petre</td>
<td><a href="mailto:p_babilua@yahoo.com">p_babilua@yahoo.com</a></td>
</tr>
<tr>
<td>Bagher Keramati</td>
<td><a href="mailto:bkeramati@semnan.ac.ir">bkeramati@semnan.ac.ir</a></td>
</tr>
<tr>
<td>Bajravani Ali</td>
<td><a href="mailto:bajarvani1305@gmail.com">bajarvani1305@gmail.com</a></td>
</tr>
<tr>
<td>Baladze Vladimir</td>
<td><a href="mailto:vbaladze@gmail.com">vbaladze@gmail.com</a></td>
</tr>
<tr>
<td>Bandaliyev Rovshan</td>
<td><a href="mailto:bandaliyev.rovshan@math.ab.az">bandaliyev.rovshan@math.ab.az</a></td>
</tr>
<tr>
<td>Basak Koca Beyaz</td>
<td><a href="mailto:kocabasak@hotmail.com">kocabasak@hotmail.com</a></td>
</tr>
<tr>
<td>Bastani Mehdi</td>
<td><a href="mailto:bastani@azaruniv.ac.ir">bastani@azaruniv.ac.ir</a></td>
</tr>
<tr>
<td>Bayindir Hilal</td>
<td><a href="mailto:hilalbayindir2@gmail.com">hilalbayindir2@gmail.com</a></td>
</tr>
<tr>
<td>Beloshapka Iuliya</td>
<td><a href="mailto:i-beloshapka@yandex.ru">i-beloshapka@yandex.ru</a></td>
</tr>
<tr>
<td>Berkman Ayşe</td>
<td><a href="mailto:ayse.berkman@msgsu.edu.tr">ayse.berkman@msgsu.edu.tr</a></td>
</tr>
<tr>
<td>Beyarslan Özlem</td>
<td><a href="mailto:obeyarslan@gmail.com">obeyarslan@gmail.com</a></td>
</tr>
<tr>
<td>Bilalov Bilal</td>
<td>b <a href="mailto:bilalov@mail.ru">bilalov@mail.ru</a></td>
</tr>
<tr>
<td>Bitsadze Rusudan</td>
<td><a href="mailto:Bitsadze.R@gmail.com">Bitsadze.R@gmail.com</a></td>
</tr>
<tr>
<td>Bokelavadze Tengiz</td>
<td><a href="mailto:bokel71@yahoo.com">bokel71@yahoo.com</a></td>
</tr>
</tbody>
</table>
Guliyeva Aida       amea1984@gmail.com
Gursoy Osman           osmangursoy@maltepe.edu.tr
Guseynov Yevgeniy    gyevg@yahoo.com
Habibzadeh Somayeh   s.habibzadeh@iasbs.ac.ir
Hajibadali Ali        haji.badali@bonabu.ac.ir
Hanoymak Turgut       turguthanoymak@gmail.com
Harutyunyan Tigran    hartigr@yahoo.co.uk
Hassani Feysal        ebadian.ali@gmail.com
Heidari Nikrooz       nikrooz.heidari@modares.ac.ir
Hooshmand Mohammad Hadi  hadi.huoshmand@gmail.com
Hosseini Arezoo       math.hosseini@gmail.com
Huseynli Ali          alihuseynli@gmail.com
Ikeda Kazim Ilhan     ilhan.ikeda@yeditepe.edu.tr
Ilmakchi Mohammad     ilmakchi@azaruniv.edu
Incesu Muhsin         m.incesu@alparslan.edu.tr
Irandonoust-pakchin Safar  s.irandonoust@tabrizu.ac.ir
Iranmanesh Ali         iranmanesh@modares.ac.ir
Israilov Saidahmed    segitov@mail.ru
Jafarzadeh Yousef     mat2j@yahoo.com
Jahanshahi Mohammad   jahanshahi@azaruniv.edu
Jahromi Alireza Fakharzadeh  a_fakharzadeh@sutech.ac.ir
Jamshidi Mina         m.jamshidi@kgut.ac.ir
Jangveladze Temur     tjangv@yahoo.com
Javad Vanaei Mohammad  javad.vanaei@modares.ac.ir
Kaledin Dmitry        kaledin@mi.ras.ru
Kamyad Ali Vahidian   avkamyad@yahoo.com
Kapanadze David       david.kapanadze@gmail.com
Karacay Timur         tkaracay@baskent.edu.tr
Karthikeyan Kadhuvoor kr_karthikeyan1979@yahoo.com
Kemoklidze Tariel     kemoklidze@gmail.com
Kereselidze Nugzar    tvn@caucasus.net
Khachatryan Linda     linda@instmath.sci.am
Khajehnasiri Amirahmad a_khajehnasiri@gmail.com
Khanegir Mahnaz       khanegir@msheidiau.ac.ir
Khechinashvili Zaza   khechinashvili@gmail.com
Kheiri Hossein        kheirihoessein@yahoo.com
Kiguradze Zurab       zkiigur@yahoo.com
Kobelyan Arthur       a_kobelyan@ysu.am
Kokilashvili Vakhtang kokil@rmi.ge
Komatsu Takao         komatsu@cc.hirosaki-u.ac.jp
Kopaliani Tengiz      tengizkopiani@gmail.com
Kowalski Piotr        piotr.kowalski@math.uni.wroc.pl
Kucukaslan Mehmet     mkkaslan@gmail.com
Kuzucuoglu Mahmut     matmah@metu.edu.tr
Kvaratskhelia Vakhtang
Laohakosol Vichian
Loghman Amir
Makharadze Shota
Mamedov Khanlar
Mamporia Badri
Manjavidze Nino
Mansimov K.
Marasi Hamidreza
Mardanov M.
Matykolaei Behzad Salehian
Menteshashvili Marine
Meskhi Alexander
Miri Mahdi
Mizrak Ozgur
Mohammad Pouri Akram
Momtahan Ehsan
Moradi Sirous
Moradian Khibary Marzieh
Morowati-Shalivand Shahram
Moslehiyan Mohamad Sal
Motlaghian S. M.
Movsisyan Yuri
Murshudov Garib N.
Murshudov G.N
Nadaraia Elizbar
Nahapetian Boris S.
Najafzadeh Shahram
Natroshvili David
Neset Aydin
Nezhad Farzaneh Falahati
Nuriyeva Fidan
Oboudi Mohammad Reza
Odishelidze Nana
Orlov Dmitri
Paatashvili Vakhtang
Pakravesh Yaghub
Pashaie Firooz
Peradze Jemal
Pierce David
Pişkin Erhan
Polat Necat
Poliektova-Nikoladze Z.
Pourkarimi Latif
v_kvaratskhelia@yahoo.com
fscivil@ku.ac.th
amirloghman@gmail.com
shota_59@mail.ru
hanlar@mersin.edu.tr
badrimamporia@yahoo.com
ninomanjavidze@yahoo.com
akja@rambler.ru
hamidreza.marasi@gmail.com
akja@rambler.ru
bsalehian@du.ac.ir
marimen1963@gmail.com
meskhi@rmi.ge
Mahdi.Miri.Math@Gmail.com
ozgurmizrak@gmail.com
pouri@tabrizu.ac.ir
momtahan_e@hotmail.com
sirousmoradi@gmail.com
mmkh926@gmail.com
Shahram.mti@gmail.com
moslehiyan@um.ac.ir
sara.moosavi.mtn@gmail.com
yurimovsisyan@yahoo.com
garib@mrc-lmb.cam.ac.uk
garib@mrc-lmb.cam.ac.ukg
elizbar.nadaraia@tsu.ge
Nahapet@instmath.sci.am
najafzadeh1234@yahoo.ie
natrosh@hotmail.com
neseta@comu.edu.tr
farzanehfalahati_n@yahoo.com
nuriyevafidan@gmail.com
mr_oboudi@yahoo.com
nana_georgiana@yahoo.com
orlov@mi.ras.ru
paatashvilitam2@gmail.com
v_pakravesh@yahoo.com
firpashaie@gmail.com
j_peradze@yahoo.com
davut.deler@gmail.com
episkin@dicle.edu.tr
npolat@dicle.edu.tr
kuzpn@gmail.ru
lp_karimi@yahoo.com
30
Yarahmadi Zahra  z.yarahmadi@gmail.com
Yasar Erol  eroly69@gmail.com
Yildirim Cem Yalçın  cyalciny@gmail.com
Yildirim Kenan  k.yildirim@alparslan.edu.tr
Yousefi Marzieh Shamsi  m.shams@guilan.ac.ir
Yusuf Abu Muhanna  ymuhanna@aus.edu
Zaare-Nahandi Rashid  rashidzn@iasbs.ac.ir
Zakradze Mamuli  mamuliz@yahoo.com
Zeinali Masoumeh  zeinali@tabrizu.ac.ir
Zviadadze Shalva  sh.zviadadze@gmail.com