CONTENTS

1. FOREWORD xiv
2. COMMITTEES xv
3. SESSIONS xviii
4. ACKNOWLEDGMENTS xix
5. PLENARY SPEAKERS 1

σ-Convergence and a New Sequence Space of Order α 2
Ekrem Savas

Mathematical Beauty in Black Hole Radiation 3
İzzet Sakalli

Simulation: It’s the Name of the Game 4
Jane Horgan, Charlie Daly, James Power

Variations of the ccc Property 5
Ljubiša D.R. Kočinac

Exponential Stability for the Nonlinear Schrödinger Equation with Locally Distributed Damping 6
Marcelo M. Cavalcanti, Wellington J. Corrêa, Türker Özsarı, Mauricio Sepúlveda, Rodrigo Véjar Asem

Spectral Disjointness and Invariant Subspaces 7
Robin Harte

6. ABSTRACTS 8

6.1 Topology 9

Neutrosophic Soft δ-Topology and Neutrosophic Soft Compactness 10
Ahu Acikgoz, Ferhat Esenbel

Neutrosophic Soft Pre-Separation Axioms 11
Ahu Acikgoz, Ferhat Esenbel

Neutrosophic Soft Semiregularization Topologies and Neutrosophic Soft Submaximal Spaces 12
Ahu Acikgoz, Ferhat Esenbel

Domination in Discrete Topology Graphs 13
Ali Amer Jabor, Ahmed Abd-Ali Omran
Stabilization of the Wave Equation with a Localized Memory Term and Border Friction Dissipation
Aries Mohammed Es-Salah

Statistical Quasi Cauchy Sequences in Abstract Metric Spaces
Ayse Sonmez and Huseyin Cakalli

Existence Results of First-Order Differential Systems with Mixed Quasimonotone Nonlinearities and Integral Boundary Condition
Bachir Messirdi, Mohammed Derhab, Tewfik Khedim

Steklov Eigenvalue Problem with a-Harmonic Solutions
Belhadj Karim

Second Order Sweeping Process with Almost Convex Perturbation
Doria Affane, Mustapha Fateh Yarou

Singular Degenerate Normal Differential Operators for First-Order
Fatih Yılmaz, Meltem Sertbaş

Existence of Solutions for Delay Dynamic Equations on Time Scales
Fayçal Bouchelaghem, Abdelouaheb Ardjouni, Ahcene Djoundi

Optimization of Second Order Evolution Differential Inclusions Problem with Phase Constraints
Gulseren Cicek, Elmihan Mahmudov

Global Behavior of some Difference Equations
Hamdy A. El-Metwally, M. Al-kaff

Norm and Almost Everywhere Convergence of Convolution Powers
Heybetkulu Mustafayev

An Extreme Point Theorem
Hülya Daru

Nonlocal Elliptics Problems with Hardy Potential Term
Kheiredinne Biroud

Some Estimates in Homogeneous Function Spaces
Madani Moussai

Weighted Stepanov Pseudo Almost Periodic Functions on Time Scales
Mohamed Zitane, Mohssine Es-saiydy

On a Study of New Class of q-Fractional Operator
Mohammad Momenzadeh

An Inequality for Self Reciprocal Polynomials
Mohammed A. Qazi

On Property (UWε) under Functional Calculus
Mohammed Kachad

Pseudo Almost Periodic Generalized Functions
Mohammed Taha Khalladi
Global Existence and Uniqueness of Solutions to a Parabolic Haptotaxis Model
Naima Aissa, Hocine Tsmada

On the $\Delta_3$-Statistical Convergence of the Function Defined Time Scale
Nihan Turan, Metin Başarır

A Minimization Algorithm for Limit Extremal Problems on Convex Compactum
Özkan Döger

First Order Maximally Dissipative Singular Differential Operators
Pembe Ipek Al, Zameddin I. Ismailov

Schatten-von Neumann Characteristic of Tensor Product Operators
Pembe Ipek Al, Zameddin I. Ismailov

Some Properties of Solutions to Dynamical Systems
Serkan İler

Sufficient Conditions of Optimality for Free Time Optimization of Third Order Differential Inclusions
Serislay Demir Sağlam, Elimhan N. Mahmudov

Shechter Spectra and Relatively Demicompact Linear Relations
Slim Fakhfakh

Rate of Convergence by Phillips Operators Involving Appell Polynomials
Şule Yüksel Gungör, Nurhayat Ispir

On the Rigidity Part of Schwarz Lemma at the Boundary
Tuğba Akyel, Bülent Naş Örnek

The Transmission Problem for the Laplace Operator on a Domain with a Cuspidal Point
Nided Chikouche

6.3 Sequences, Series, Summability

On a Summation by the Abel Method of a System of Root Functions for a Nonlocal Problem with Integral Conditions
Abdelhak Berkane

On Rough Convergence of Triple Sequences
Ayhan Est, Nagarajan Subramanian, M. Kemal Ozdemir

Triple Sequence Spaces of Intuitionistic Rough $I$-Convergence Defined by Compact Bernstein Operator
Ayhan Est, Nagarajan Subramanian, M. Kemal Ozdemir

Necessary and Sufficient Tauberian Conditions Under Which Convergence Follows from $A^{*,k}$ Summability
Cagla Kambak, Ibrahim Canak

Characterization of the Compact Operators on the Class $(bv, bv^k)$
Fadime Gökçe, M. Ali Sarıoğl

Certain Matrix Characterizations Related to the Difference Spaces
Fadime Gökçe
On Some Properties of a New Paranormed Space $|C_{-1}|(p)$  
G. Cananazer Güleç  
69

Matrix operators Involving the Space $bv^p_k$  
G. Cananazer Güleç, M. Ali Sargul  
70

Some Tauberian Theorems for $(C,1,1)$ Summability Method by Regularly Generated Integrals  
Gökşen Findik, İbrahim Çanak  
71

Logarithmic Summability of Integrals on $[1,\infty)$  
Gökşen Findik, İbrahim Çanak  
72

Lacunary $A-$ Statistical Convergence and Lacunary Strong $A-$ Convergence of Order $(\alpha,\beta)$ with Respect to a Modulus  
Hacer Şengül, Mikail Et, Hüseyin Çakalli  
73

Deferred Statistical Convergence of Order $\alpha$ in Topological Groups  
Hacer Şengül, Mikail Et, Hüseyin Çakalli  
74

Lacunary d-Statistical Convergence and Lacunary d-Statistical Boundedness in Metric Spaces  
Hacer Şengül, Mikail Et, Hüseyin Çakalli  
75

Rho Statistical Convergence of Order Beta  
Huseyin Çakalli, Hacer Şengül Kandemir  
76

Abel Statistical Convergence in Metric Spaces  
Huseyin Çakalli  
77

Tauberian Theorems for the Weighted Mean Summability of Integrals on $[1,\infty)$  
İbrahim Çanak, Firat Ozsarac  
78

Category Theoretical View of I-Cluster and I-Limit Points for Ideals I with the Baire Property  
Leila Miller-Van Wieren, Tugba Yardakadim, Emre Tas  
79

Deferred Statistical Convergence and Strongly Deferred Summable Functions  
Mikail Et, P. Balsarsingh, Hacer Şengül  
80

Lacunary Statistical Convergence of Difference Sequences of Fractional Order  
Nazım Deniz Aral, Mikail Et  
81

Application on Local Properties of Factored Fourier Series  
Şebnem Yildiz  
82

A New Generalization on Absolute Riesz Summability  
Şebnem Yildiz  
83

Absolute Matrix Summability on Quasi Power Increasing Sequences  
Şebnem Yildiz  
84

Sufficient Tauberian Conditions for the $(\overline{N},p)$ Summability of Sequences  
Sefa Arif Sezer, İbrahim Çanak  
85

$p-$Ward Continuity in 2-Normed Spaces  
Sibel Ersan  
86
6.4 Fixed Point Theory

New Approach to Find Multi-Fractal Dimension of Multi- Fuzzy Fractal Attractor Sets Based on Iterated Function System
Arkam Jassim Mohammed

On the Study of Nonlinear Fractional Differential Equations on Unbounded Interval
Boulares Hamid

Chatterjica Type Fixed Point Results on Metric Spaces
Gonca Durmaz Gunog, Ishak Altun, Ali Cihad Kabaci

Fixed Point Results with $\theta$-Function on Quasi Metric Space
Gonca Durmaz Gunog, Ishak Altun

Common Fixed Points for Two Mappings
Hakima Bouhadjera

Complexity Analysis of Primal-Dual Interior Point Methods for Semidefinite Programming Based on a New Kernel Function with an Hyperbolic Barrier Term
Imene Touil, Wided Chikouche

Almost Picard Operators
Ishak Altun, Hatice Aslan Hancer

Nonconvex Second Order Sweeping Processes in Hilbert Spaces
Louisa Sabrina, Haddad Tahar

A Logarithmic Barrier Method for Linear Programming using a New Minorant Function
Mensiche Linda, Benterki Djamel, Merkhi Bachir

Existence and Uniqueness of Solution for the Problem in the Times Scales
Mouhamed Nehari

Fixed Point Approach for Differential Inclusions Governed by Subdifferential Operators
Mustapha Fateh Yarou, Doria Affane

Some Fixed Point Results on Modular $F$-Metric Spaces
Nesrin Manav, Duran Turkoglu

Three-Step Projective Methods for Solving the Split Feasibility Problems
Nontawat Ekammran, Nattawut Pholasa, Prasit Cholamjiak

A Fixed Point Approach for a Differential Inclusion Governed by the Subdifferential of PLN Functions
Nora Fatouci, Mustapha Fateh Yarou

Fixed Point Theorems on Orthogonal Metric Spaces via Altering Distance Functions
Nurcan Bilgili Gunog, Duran Turkoglu

Fixed Point Theory on Spaces with Vector-Valued Metrics
Safia Bazine

Homoclinic and Heteroclinic Bifurcations for Henon Like Diffeomorhism
Selmani Wissame, Djellit Ilhem
Convergence Theorems for Three G-Nonexpansive Mappings in Hilbert Spaces with Graphs by Modifying SP and Noor Iterations with Shrinking Projection Methods

Supitcha Peetarakorn, Nattawut Pholasa, Watcharaporn Cholamjiak

Existence Results of First-Order Differential Equations without Integral Boundary Conditions at Resonance

Teufik Khedim, Mohammed Derhab, Bachir Messirdi

6.5 Numerical Functional Analysis

Solvability of a Mixed Problem for a Heat Equation with an Involution Perturbation

Abdissalam Sarsenbi

Mixed Problem for a Wave Equation with an Involution Perturbation

Abdizhakan Sarsenbi, Modina Utelbaeva

Numerical Analysis of the Influence of the Initial Parameters on the Convergence Rate of the Approximate Solution of the Boundary Value Problem

Akylbek Kerimbekov, Aijana Ernekebaeva, Gulnaz Mombekova

A Crank Nicolson Difference Scheme for the System of Nonlinear Observing Epidemic Models

A. Ashyralyev, E. Hincal, B. Kaymakamzade

A Numerical Algorithm for the Source Identification Parabolic-Elliptic Problem

Allaberden Ashyralyev, Cagin Arikan

A Numerical Algorithm for the Source Identification Elliptic-Telegraph Problem

Allaberden Ashyralyev, Ahmad Al-Hammouri

A Numerical Algorithm for the Involutory Parabolic Problem

Allaberden Ashyralyev, Amer Mohammed Saeed Ahmed

Finite Difference Method for the Third-Order Partial Differential Equation with Nonlocal Boundary Conditions

Allaberden Ashyralyev, Kheireddine Belakroum

Time-Dependent Source Identification Problem for the Schrödinger Equation with Nonlocal Boundary Conditions

Allaberden Ashyralyev, Mesut Urun

A Numerical Algorithm for the Third Order Partial Differential Equation with Time Delay

A. Ashyralyev, E. Hincal, S. Ibrahim

A Numerical Algorithm for the Involutory Schrödinger Type Problem

A. Ashyralyev, Twana Abbas

Numerical Solution of the System of Fractional Differential Equations Observing Epidemic Models

Allaberden Ashyralyev, B. Kaymakamzade, L.D. Hayder

Well-Posedness of Source Identification Problem for the Elliptic Equation in a Banach Space

Allaberden Ashyralyev, Charyyar Ashyralyev
On Elliptic Differential and Difference Problems in a Hilbert Space with Special Type Non-local Conditions
Allaberen Ashyralyev, Ayman Hamad

Optimal Control Approach to Study Two Strain Malaria Model
Bashir Abdullahi Baba, Parwanah Esmaili, Isa Abdullahi Baba

On a Boundary Problem for a Nonlocal Poisson Equation with Boundary Operators of the Hadamard Type
Batirkhan Turmetov, Rakhim Shamsiev

On the Numerical Analysis of a Nonlinear Fractional Schrödinger Equation with Neumann Boundary Condition
Betul Hicdurmaz

An Iterative Regularization Method for an Ill-Posed Bi-Fractional Problem
Boussitila Nadjib, Sassane Rouaissia, Rebbani Faouzia

Numerical Solution of Neumann Type Elliptic Overdetermined Multipoint Mixed Boundary Value Problem
Charyyar Ashyralyyev, Suzan Karabey

A New Coupling Method for the Stokes-Darcy Model
C. Ziti, R. Malek

Sinc Approximation of Solution of Integro-Differential Equation
Dounia Belakroum, Kheireddine Belakroum

Differential and Difference Variants of 2-d Nonlocal Boundary Value Problem with Poisson's Operator
Dovlet M. Dovletov

Posterior Analysis of Weighted Erlang Distribution
E. Hinca, Sultan Alsaadi

Memory Efficient Algorithm for Solving the Inverse Gravimetry Problem of Finding Several Boundary Surfaces in Multilayered Medium
Elena N. Akimova, Vladimir E. Misilov, Murat A. Sultanov, Rauan Zh. Turebekov

Numerical Analysis of Convergence Rate of Approximation Solutions of a Boundary Value Problem for Oscillation Processes
Elmira Abdyladaeva, Zarina Kabaeva, Kubat Karabakirov

Solving Nonlinear Volterra-Fredholm Integro-Differential Equations Using He’s Variational Iteration Method
Fernane Khairredine, Ellagoune Selma

The Effect of Harvesting Policy on an Eco-Epidemiological model
Karrar Q. Al-Jubouri, Reem M. Hussien, Nadia M.G. Alsaadi

Interpolation of Scattered Data in $\mathbb{R}^3$ Using Minimum $L_p$-Norm Networks, $1 < p < \infty$
Krassimir Vlachkova

On Unique Solvability of Nonlinear Coupled Systems
Meltem Uzun, Ozgur Yildirim
Construction of Unconditionally Stable Difference Schemes Based on Stability of Perturbed Difference Scheme
Murat A. Sultanov, Musabek I. Akyldaev

An Inverse Diffusion-Wave Problem Defined in Heterogeneous Medium with Additional Boundary Measurement
Nouri Brahim, Djerioui Khayra

Symmetry Analysis of the Discrete Nonlinear Boundary Value Problems for the Wave Equation
Sumeyra Caglak, Ozgur Yildirim

6.6 Computer Science and Technology

A New Pseudo Random Bits Generator via 2D chaotic System, Diffusion, and Permeation
Alaa kadhim Farhan, Abeer Tariq, Rasha S.Ali, Nadia M.G. Alsaidi

Diffuse Representation of Image and Its Applications to Cryptography and Compression
Amrane Houas, Zouhair Mokhtar

Comparison of C, Java, Ruby and Matlab Programming Languages Using Fibonacci Algorithm
Ceren Cubakcu, Zeynep Behrin Guven Aydin, Ruya Samli

Image encryption based on highly sensitive chaotic system
Dalal S. Ali, Nawras A. Alwan, Nadia M.G. Alsaidi

Review of the Most Popular Data Science Programs Used Today: Python and R
Ender Sahinaslan

A Study on the Industrial Usage Areas of Modern Information Technologies
Ender Sahinaslan, Onder Sahinaslan

Market Basket Analysis Developed On The Refrigerator Control System With Machine Learning Algorithms In Data Mining Applications
Engin Ogusay

Sentiment Analysis of Turkish Twitter Data
Harisu Abdullahi Shehu, Sezai Tokat, Md. Haidar Sharif, Sahin Uyaver

Motion Estimation from Noisy Image Sequences using New Frequency Weighting Functions
Ismaili Alaoui El Mehdi

A Modification of Gravitational Search Algorithm with Hyper-Ellipsoids
İclal Gür, Korhan Günel

Controlling Electrical Appliance by Thinking in Mind
Md. Haidar Sharif, Sahin Uyaver

Development of an Information System for Storing Digitized Works of the Almaty Academgorodok Research Institutes
Nurlan Temirbekov, Dossan Baqereyev, Almas Temirbekov, Bakytzhan Omirzhanova

Encryption Algorithms in Blockchain Technology
Onder Sahinaslan
Darboux integrability and algebraic invariants of an enzymatic diffusion-reaction system  
_Orhan Ozgur Ayyar_  
154

Weak stabilization of a fractional output for a class of semi-linear Dynamical Systems  
_R. Larhrissi, H. Zitane, A. Boutoulout_  
155

Fusion of Finger-Knuckle-Print and Finger Vein Recognition using Random Forest Tree  
_Rachid Chelaoua, Abdallah Meraoumia_  
156

Extracting a New Fractal and Semi-Variance Attributes for Texture Images Categorization  
_Suhad A. Yousif, Hussam Y. Abdul-Wahed, Nadia M.G. Al-Saidi_  
157

A Block-Based Image Encryption Scheme Using Cellular Automata With Authentication Capability  
_Ziba Eslami, Saeideh Kabirirad_  
158

6.7 Mathematical Methods in Physics  
159

Two Dimensional Free Surface Flows Past an Obstacle  
_Abdelkader Gasmi_  
160

Analytical Solution for the Conformable Fractional Telegraph Equation by Fourier Method  
_Abdelkebir Saad, Noutri Brahmi_  
161

Small Divisors in the Solar System  
_Angel Zhivkov_  
162

Laguerre Polynomial Approach for Solving Functional Differential Equations Involving First Order Nonlinear Delay Terms  
_Burcu Gürbüz, Mehmet Sester_  
163

Laguerre Matrix-Collocation Technique to Solve Systems of Functional Differential Equations with Variable Delays  
_Burcu Gürbüz_  
164

Secure Optical Communication Based on New 2D-Hyperchaotic Map  
_Dhurgham Younes, Nadia M.G. Alsaidi, Walid K. Hamoudi_  
165

The Explicit Relation Between the DKP Equation and the Klein-Gordon Equation  
_Djahida Bouchefra, Badredine Boudjedaa_  
166

Soliton Solutions of Gursey Model with Bichromatic Force  
_Eren Tosyalı, Fatma Aydoğan_  
167

MHD Micropolar Blood Flow Model through a Multiple Stenosed Artery  
_Esam A. Abussairy, Ahmed Bakheet_  
168

Total Reduction of Chiral Oscillator and Its Dirac Analysis  
_Filiz Çağatay Uğurın_  
169

Thin-Shell Wormhole in f(R) Gravity  
_S. Habib Mashanmousavi_  
170

Mathematical Beauty in Black Hole Radiation  
_Izzet Sakalı_  
171
Solving Advection Equation Using the Natural Decomposition Method 172
  Jeerawan Saclao, Khanitha Kamdee

  Merve Yücel, Oktay Mukhtarov

Mathematical Behaviour of Solutions of the Kirchhoff Type Equation with Logarithmic Non-linearity 174
  Nazlı İrkal, Erhan Pişkin

Modeling and Analysis the Effect of Social Media for a Zika Virus Transmission with Beddington DeAngelis Incidence Rate 175
  Puji Andayani

Non-Commutative Geometry and Application to Schrödinger Equation with Certain Central Potentials 176
  Zaiem Slimane

6.8 Recent Themes on Controllability and Stability of PDE’s 177

Controllability Results of Hilfer Fractional Differential Inclusions with Non-Dense Domain in Abstract Space 178
  Assia Boudjera, Djamila Seba, Karima Laoubi

A Note on Dirichlet Problem for Partial Differential Equations with Complex Variables in the Bidisc 179
  Bahriye Karaca

On the Stabilization of Infinite Dimensional Bilinear Systems 180
  El Hassan Zerrik, Abderrahmane Ait Aadi

A Mixed Relaxed-Singular Optimal Controls for Systems of Forward-Backward Stochastic Differential Equations of Mean-Field Type 181
  Gherbal Boulakhiras, Ninouh Abdelhakim

Stability Result for an Abstract Delayed Evolution Equation with Arbitrary Decay in Viscoelasticity 182
  Houria Chellaoua, Yamna Boukhalem

Hopf-Like Bifurcation and Mixed Mode Oscillation in a Fractional-Order FitzHugh-Nagumo Model 183
  Mohammed Salah Abdelouahab, René Lozi

6.9 Applied Statistics 184

Regularization Schemes for Statistical Inverse Problems 185
  Abhishek Rastogi

Forecasting ATM Transactions 186
  Ayşe Cilacı Tombuş, Erdal Albayrak

Improved New Liu-Type Estimator for Poisson Regression Models 187
  Esra Ertan, İsmail Müfit Giresunlu, Kadri Ulaş Akay
Generalized First Passage Time Method for the Estimation of the Parameters of the Stochastic Differential Equation of the Black-Scholes Model
Khalidi Khaled, Meddahi Samia 188

Comparison of ARIMA, Holt-Winters, and LSTM Forecasting Models Using Kullback Information Measure
Luckshay Batra, H.C. Taneja 189

On the Fuzzy Reliability Estimation for Lomax Distribution
Nadia Hashim Al-Noor 190

On the Exponentiated Weibull Distribution
Nadia Hashim Al-Noor, Salah Hamza Abid, Mohammad Abd Alhussein Boshi 191

2D Markov-Switching Autoregressive (MS AR) Models for Image Segmentation
Soumia Kharfouchi, Houria Djafri 192

Entropy as a Measure of Implied Volatility in Options Market
H.C. Taneja, Luckshay Batra 193

Using Copulas to Model Dependence Between Crude Oil Prices
Vadoud Najjari 194

6.10 Geometry and Mathematical Education 195

Perfect Fluid Pseudo Concircular Ricci Symmetric Spacetimes with Codazzi Type Z-Tensor
Ayse Yavuz Tasci, Fusun Ozen Zengin 196

On Ruled Surfaces of Natural Lift Curves and Tangent Bundle of Pseudo-Sphere
Emel Karaca, Mustafa Çalışkan 197

On Infinitesimal Transformations Of Weyl Manifolds
İhan Göl 198

Minimum Distance Between two Ellipses
Ivaylo Tounchev 199

Some Properties of Generalized Complex Space Forms
Pegah Mutlu 200

Pointwise Slant Semi-Riemannian Submersions from Lorentzian Para-Sasakian Manifolds
Sahar Mashmouli, Morteza Faghfouri 201

Geometrical View on Set-Theoretical Solutions of Yang-Baxter Equation via Lie Algebras
Serife Nur Bozdağ, İbrahim Sentürk 202

6.11 Algebra and Number Theory 203

On the Aggregating of Some Fuzzy Relations and their Related Structures
Abdelaziz Amroune, Aissa Bouad 204

An Abstract Characterization of Menger Algebras of Strongly Quasi-Open Multiplace Maps
Firudin Muradov 205

New Types of Uninorms on Bounded Lattices
Gül Deniz Çağlı 206
Sheffer Stroke Reduction for Some Algebraic Structures 207
Ibrahim Şentürk, Tuhsin Oner

Some Properties of EM Rings 208
Manal Ghanem, Emad Abu Osba

On a Generalized Identity of a Prime Ring Involving $b$–Generalized Derivations 209
Nihan Baydar Yarbil

On cyclic codes of length $8p^t$ over $\mathbb{F}_p^m + u\mathbb{F}_p^m$ 210
Saroj Rani

On Products of Irreducible Characters 211
Temha Erkoc, Burcu Çınarci
1. FOREWORD

On behalf of the Organizing Committee, we are very pleased to welcome you to the 3rd International Conference of Mathematical Sciences (ICMS 2019) to be held between 4-8 September 2019 at Maltepe University in Istanbul.

We hope that, ICMS 2019 will be one of the most beneficial scientific events, bringing together mathematicians from all over the world, and demonstrating the vital role that mathematics play in any field of science.

Welcome to our conference, Maltepe University, İstanbul!

Hüseyin Çakalli
Chairman of the Organizing Committee
2. COMMITTEES

HONORARY COMMITTEE

Hüseyin Şimşek (Founder of Maltepe University, Chairman of the Board of Trustees, Turkey)
Şahin Karasar, (Rector, Maltepe University, Turkey)

ORGANIZING COMMITTEE

Hüseyin Çakalli (Chairman, Maltepe University, Turkey)
Özay Gürtuğ (Maltepe University, Istanbul, Turkey)
Dragan Djordjevic (University of Nis, Faculty of Sciences and Mathematics, Serbia)
Marcelo Moreira Cavalcanti (State University of Maringa, Brazil)
Şebnem Yıldız (Ahi Evran University, Turkey)
Hülya Duru (Istanbul University, Turkey)
Özkan Değer (Istanbul University, Turkey)
Fuat Usta (Düzce University, Turkey)

LOCAL COMMITTEE

İdris Adnan Gümüş (Maltepe University)
Özay Gürtuğ (Maltepe University)
Hüseyin Çakalli (Maltepe University)
Sibel Ersan (Maltepe University)
Önder Şahinaslan (Maltepe University)
Tugba Akyel (Maltepe University)
İlhan Gül (Maltepe University)
Bahriye Karaca (Maltepe University)
Filiz Çağatay Uğun (Maltepe University)
Selim Bayraklı (Maltepe University)
Vildan Katmer Bayraklı (Maltepe University)
INTERNATIONAL SCIENTIFIC COMMITTEE

A. Duran Turkoğlu (Turkey)  
Ahu Acikgoz (Turkey)  
Allaberent Ashyralykov (Turkey)  
Ayse Sonmez (Turkey)  
Ayhan Esi (Turkey)  
Alexander Anabini (Russia)  
Alaeddin Malek (Iran)  
Alemdar Demirci (Turkey)  
Amalia Pioroz (Poland)  
Billy Rhoades (USA)  
Bipans Hazarika (India)  
Bedriye Zeren (Turkey)  
Boyan Dimitrov (USA)  
Cigdem Gunduz Aras (Turkey)  
David Herrera Carrasco (Mexico)  
Dejan Ilic (Serbia)  
Dragan Djojic (Serbia)  
E. Fokoue (USA)  
E. Alexov (USA)  
Ekrem Savas (Turkey)  
Evren Hincal (Turkey)  
Filiz Dik (USA)  
G. Anastassiou (USA)  
H. A. El-Metwally (Egypt)  
Huseyin Bereketoglu (Turkey)  
H. Elsalloukh (USA)  
H. Nour Eldin (Denmark)  
Huseyin Cakali (Turkey)  
Huseyin Kaplan (Turkey)  
Hongde Hu (USA)  
I. G. Avramidi (USA)  
Ibrahim Canak (Turkey)  
Idris Adnan Gümüş (Turkey)  
Ifet Taylan (Turkey)  
İlter Büyükdağan (Turkey)  
Ivan Jeliazkov (USA)  
İzett Sakalli (Northern Cyprus)  
J. Diblik (Czech Republic)  
J. Gerardo Aihuatzi Reyes (Mexico)  
J. M. Cushing (USA)  
J. Z. Farkas (UK)  
Javier F. Rosenblueth (Mexico)  
Jean Horgan (Ireland)  
Jiling Cao (New Zealand)  
K. Fahem (Algeria)  
K. Khan (USA)  
Ljubisa D. R. Kocinac (Serbia)  
Makhmud Sadybekov (Kazakhstan)  
M. Ali Sarigol (Turkey)  
Marcelo Moreira Cavalcanti (Brazil)  
M. Buntinas (USA)  
Mehmet Dik (USA)  
Mehmet Unal (Turkey)  
M. F. Shaughnessy (USA)  
M. Matejdes (Slovakia)  
Mark Burgin (USA)  
Mujgan Tez (Turkey)  
Necip Simsek (Turkey)  
Omer Asilim Sacli (Turkey)  
Onder Sahinaslan (Turkey)  
Ozay Gurtug (Turkey)  
Osman Mucuk (Turkey)  
Oner Cakar (Turkey)  
Pratulananda Das (India)  
Pablo Amster (Argentina)  
Robin Harte (Ireland)
Richard Patterson (USA)
Sahin Uyaver (Turkey)
Sajid Hussain (Canada)
Sebnem Yildiz (Turkey)
Sibel Ersan (Turkey)
W. H. Ruckle (USA)
Xiaoping Shen (USA)
Tynysbek Kalmenov (Kazakhstan)
Valeria Neves Domingos Cavalcanti (Brazil)
Y. Lio (USA)
Yusuf Unlu (Turkey)
Yi Mu (Australia)
Zbigniew Piotrowski (USA)
3. SESSIONS

The lectures in the following parallel sessions are to be held after the plenary speakers lectures:

1. "Topology" organized by Ljubisa D. R. Kocinac,
2. "Analysis and Functional Analysis" organized by Ibrahim Canak,
3. "Sequences, Series, Summability" organized by Hacer Sengul,
4. "Fixed Point Theory" organized by Duran Turkoglu,
5. "Numerical Functional Analysis" organized by Allaberen Ashyralyev,
6. "Computer Science and Technology" organized by Sahin Uyaver,
8. "Recent themes on Controllability and Stability of PDE’s" organized by Valeria Neves Domingos Cavalcanti, and Marcelo Moreira Cavalcanti,
10. "Geometry, and Mathematical Education" organized by İlhan Gul.
4. ACKNOWLEDGMENTS

We thank firstly the founder of Maltepe University, Hüseyin ŞİMŞEK, the rector of Maltepe University, Prof. Dr. Şahin KARASAR. We also thank the parallel session organizers, and then all scientific committee members who reviewed abstracts which made the conference better.

There are many people who spent a lot of time and effort to make this conference possible. We would like to thank especially to the following young colleagues who had contributed to the success of this conference in various ways:

Önder Şahinaslan, Maltepe University, Turkey
Fuat Usta, Düzce University, Istanbul, Turkey
Özkan Değer, Istanbul University, Istanbul, Turkey
On the Aggregating of Some Fuzzy Relations and their Related Structures

Abdelaziz Amroune1, Aissa Bouad2
1 Laboratory of Pure and Applied Mathematics, Med Boudiaf University, M'Sila, Algeria, abdelaziz.amroune@univ-msila.dz
2 Laboratory of Pure and Applied Mathematics, Med Boudiaf University, M'Sila, Algeria, aissa.bouad@yahoo.com

The main goal of this presentation is to investigate the aggregation of diverse families of binary fuzzy relations, fuzzy filters, and fuzzy lattices. Some links between these families and their images via an aggregation are explored.

Keywords: Aggregation, fuzzy relation, fuzzy lattices, fuzzy filter, trace.
2010 Mathematics Subject Classification: 03E72, 06D72, 06B10, 97H50.

References

DOI:10.7151/dmga.1293

https://doi.org/10.1007/978-3-7908-1787-4

https://doi.org/10.1016/j.ins.2013.08.026