ICMME²⁰₂₅

**INTERNATIONAL CONFERENCE
ON MATHEMATICS AND MATHEMATICS EDUCATION**

Mathematics in Istanbul Bridge Between Continents

CONFERENCE PROGRAM

ISTANBUL MEDENIYET UNIVERSITY

MEDENIYET TEKNOPARK

ÜMRANİYE Belediyesi

ÜSKÜDAR BELEDİYESİ

SEPTEMBER 11-13, 2025/İstanbul-TÜRKİYE

www.theicmme.org   www.medeniyet.edu.tr

SCHEDULE OF LECTURES AND COMMUNICATIONS

CONFERENCE PROGRAM OVERVIEW

11 September 2025

Registration	09:00-10:00
Opening Ceremony	10:00-10:45
Coffee Break	10:45-11:00
Plenary Talk	11:00-11:45
Plenary Talk	11:45-12:30
Lunch	13:00-14:00
Plenary Talk	14:00-14:45
Plenary Talk	14:45-15:30
Coffee Break	15:30-15:45
Sessions	15:45-17:00
Coffee Break	17:00-17:15
Sessions	17-15-18:15
Dinner	19:00-

12 September 2025

Plenary Talk	09:30-10:15
Plenary Talk	10:15-11:00
Coffee Break	11:00-11:15
Sessions	11:15-12:30
Lunch	13:00-14:00
Session	14:00-14:45
Excursion(Boğaz Valide Sultan Gemi Turu)	16:30-18:30

SCHEDULE OF LECTURES AND COMMUNICATIONS

11 September 2025	
09:00-10:00	**Registration**
10:00-10:45	**Opening Ceremony**
10:45-11:00	**Coffee Break**

RED HALL

Chair: Pınar OBAKAN YERLİKAYA

11:00-11:45	Çetin ELMAS A New Bridge Between Disciplines, Languages, and Continents
12:00-12:45	Nihat BERKER Phase Tansitions, Spin-Glass Chaos, Music, Brain, High School and Undergraduate Student Research Empowerment
13:00-14:00	**Lunch**

RED HALL

Chair: Okay ÇELEBİ

14:00-14:45	Natasha SAMKO On weighted estimates for operators of harmonic analysis in Morrey spaces via point-wise estimates for weighted Hardy operators
14:45-15:30	Amiran GOGATISHVILI Generalized Weighted Lorentz spaces
15:30-15:45	**Coffee Break**

HALL 101

Chair: Amiran GOGATISHVILI

15:45-16:00	Nazerke ZHANGABERGENOVA, Ainur TEMIRHANOVA, Nurzhan ABAIULY Weighted inequalities for discrete bilinear Hardy-type operator with matrices
16:00-16:15	İsmail EKİNCİOĞLU, Cansu KESKİN Fefferman-Stein inequalities for the Riesz Bessel transform
16:15-16:30	Amir Hossein MOKHTARI Commutant-Preserving Maps on some Matrix Algebras
16:30-16:45	Reyyan GÖKTAŞ, Kemal AYDIN Schur Stability Analysis of a Two-Economy Macroeconomic Model
16:45-17:00	

SCHEDULE OF LECTURES AND COMMUNICATIONS

17:00-17:15	**Coffee Break**

Chair: Gülay KORU YÜCEKAYA	
17:15-17:30	Beran PİRİNÇÇİ Semi-invariant Riemannian submersions whose total manifolds have globally conformal Kenmot sustructures
17:30-17:45	Emel KARACA, Tuğba MERT, Mehmet ATÇEKEN On Some Geometric Properties of para-Kenmotsu Manifolds
17:45-18:00	Doğukan ÖZBEY, İklima BAL, Emel KARACA On Conformable Slant Ruled Surfaces
18:00-18:15	Umut SELVİ, Derya SAĞLAM, Emel KARACA Generalized Multiplicative Cross Product
19:00	**Dinner**

HALL 102

Chair: Sare ŞENGÜL	
15:45-16:00	
16:00-16:15	Ahmet Salih DOĞAN, Ahmet Şükrü ÖZDEMİR Examining the Norms of the Problem-Solving Process within the Framework of Practical Rationality
16:15-16:30	Elif KARA EZAN, Nazan SEZEN YÜKSEL Modeling Problem Solving Process Interaction Analysis: A Discourse Study on the Parking Lot Design Problem
16:30-16:45	Nehir KEYİK A Teaching Activity Based on a Hypothetical Learning Trajectory: Modeling of Identities
16:45-17:00	Nehir KEYİK An Examination of Discursive Moves in Horizontal and Vertical Mathematization Processes within the Realistic Mathematics Education Approach And Vertical Mathematization Processes within the Realistic Mathematics Education Approach
17:00-17:15	**Coffee Break**

Chair: Sare ŞENGÜL	
17:15-17:30	İlham MİRAÇ, Ömer AKIN Contemplation in Mathematics
17:30-17:45	Fatmagül ERGÜN, Emin AYDIN The Development of Algebraic Thinking in Instructional Interventions: A Systematic Review
17:45-18:00	Mehmet ERÇOBAN, Sare ŞENGÜL An Examination of Seventh-Grade Students' Symbol Sense Through Technology-Supported Tasks

SCHEDULE OF LECTURES AND COMMUNICATIONS

18:00-18:15	
19:00	**Dinner**

HALL 103	
Chair: Uğur YİĞİT	
15:45-16:00	Özgün GÜRMEN ALANSAL Quadratic modules for Leibniz Algebras
16:00-16:15	Özgün GÜRMEN ALANSAL, Erdal ULUALAN From quadratic modules to Nil (2)-modules of Lie Algebras
16:15-16:30	Mashhour Bani ATA On the action of the Chevalley group E6(K) on Tits component V1 for fields K of characteristic 2
16:30-16:45	Mert Sinan ÖZ Smoothness Analysis of Spectral Radii Based on Some Well-Known Topological Indices
16:45-17:00	Hatice ÇAY New extensions of weakly 1-absorbing ideals in the context of m-Systems
17:00-17:15	**Coffee Break**
Chair: Ali DİNLER	
17:15-17:30	Mehmet UC Structure and Interactions of Augmentation Submodules in G-set Modules
17:30-17:45	Rabia ÜREĞEN New Perspectives on Generalized Prime Ideals
17:45-18:00	Uğur YİĞİT Generalized Prime and Maximal Ideals and Topologies in Commutative Rings
18:00-18:15	
19:00	**Dinner**

HALL 104	
Chair: Ali Serdar NAZLIPINAR	
15:45-16:00	Zineb KHALILI Stability result for a thermodiffusion laminated beam with localized nonlinear damping
16:00-16:15	Nafiseh FARAJIRAD, Müge ENSARİ ÖZAY, Emine CAN Prioritizing process safety management elements in offshore operations: an integrated AHP–TOPSIS approach

SCHEDULE OF LECTURES AND COMMUNICATIONS

16:15-16:30	İlham MİRAÇ Direct and inverse problems for the system of electromagnetoelasticity differential equations in the linear approximation
16:30-16:45	Murat DÜZ Solution of differential equations whose coefficients are polynomial from first degree by using Laplace transform
16:45-17:00	Düriye KORKMAZ DÜZGÜN On the Mersenne polynomials
17:00-17:15	**Coffee Break**

Chair: Rüya YEĞİN ŞEN

17:15-17:30	Murat DÜZ and Ahmad J.A. ISSA The Bessel equation and its alternative analytic solution
17:30-17:45	Nilay AKGÖNÜLLÜ PİRİM Solving systems of nonlinear differential equations: An approximation methodology
17:45-18:00	Bahriye KARACA Constructing harmonic Green functions in polydomains
18:00-18:15	
19:00	**Dinner**

HALL 105

Chair: Betül HİÇDURMAZ

15:45-16:00	Burak AĞGÜL, Hüseyin GÖKAL A Mathematical Comparison of SLAM Families: Observability, Information-Theoretic Bounds, and Optimization Landscapes
16:00-16:15	Bilal İNAN, Nurettin DOĞAN Automatic Lesion Segmentation in Dental Bitewing Radiographs: Comparative Analysis of U-Net, Attention U-Net, Mask R-CNN, and YOLOv11n-seg Models
16:15-16:30	Zehra KORKMAZ, Murat DÖRTERLER A Study on the Performance of Deep Neural Networks for Camouflaged Military Object Detection
16:30-16:45	Ali Talib MOHAMMED, Ali Ahmed ZAINAB, Enver AYTEKİN A new alpha power Rayleigh Weibull distribution with its applications to simulated and real data
16:45-17:00	
17:00-17:15	**Coffee Break**

Chair:

17:15-17:30	
17:30-17:45	
17:45-18:00	
19:00	**Dinner**

HALL 106

Chair: Emine CAN

15:45-16:00	Ömer AKIN Why is Fuzzy Similarity?
16:00-16:15	Nafiseh FARAJIRAD, Emine CAN, Müge Ensari ÖZAY, Nergis ÇANAKÇI, Emin TARAKÇI Multi-Criteria Ergonomic Risk Assessment of Cleaning Operations Using Pythagorean Fuzzy-VIKOR and Postural Analysis Methods
16:15-16:30	Dürdane YILMAZ, Ali DİNLER Integrating Noise Analysis and Fuzzy Decision Trees for Geometry-Aware Optimization of Solid-State Nanopores
16:30-16:45	Ümit KARABIYIK Incorporating Expert Confidence Levels into Fuzzy Multi-Criteria Decision-Making under Uncertainty
16:45-17:00	Ümit KARABIYIK A Study on (p, q)-Bernstein-Chlodowsky-Durrmeyer Operators: One and Two Variables Approximation Properties
17:00-17:15	**Coffee Break**

Chair: Hayriye SUNDU PAMUK

17:15-17:30	Mehmet Mert AKTAŞ Coffee Ring Effect: Mathematical Analysis
17:30-17:45	Maamar MALKI, Sid Ali BOUBENDIR, Salah LARBI, Nasreddine SAKHRI, Kamel DJENDER Influence of Dilatant fluid on hydrodynamic journal bearing
17:45-18:00	Sabri Emre CİVAN, Dilara İÇKECAN, Hasan GÜLBİÇİM, Nureddin TURKAN Radiation Shielding Efficiency of Praseodymium Hexaboride: A Monte Carlo Study
18:00-18:15	Nurul İslam HAN, Nureddin TURKAN, Tayfun AKYUREK The investigation of some new generation alternating shielding materials for the new generation NPP
19:00	**Dinner**

12 September 2025

SCHEDULE OF LECTURES AND COMMUNICATIONS

RED HALL	
Chair: Amiran GOGATISHVILI	
09:30-10:15	Çiğdem KILIÇ Problem Çözmede Yönelimler: Sosyal Adalet ve Değer Temelli Problem Çözme Yaklaşımları
10:15-11:00	Victor I. BURENKOV Interpolation theorems for nonlinear operators in general Morrey-Type spaces
11:00-11:15	**Coffee Break**
HALL 101	
Chair: Cansu KESKİN	
11:15-11:30	İsmail EKİNCİOĞLU, Züleyha Açelya ÜÇER On the Boundedness of the Multilinear Generalized Translate Operator
11:30-11:45	Abdulhamit KÜÇÜKASLAN, Amira TRHUNI Quantum Hardy-Littlewood Maximal Operator in the Quantum Lebesgue Spaces
11:45-12:00	Abdulhamit KÜÇÜKASLAN, Aisha RWEN Quantum Hardy-Littlewood Maximal Operator and Quantum Riesz Potential Operator in the Quantum Morrey Spaces
12:00-12:15	Coşkun YAKAR, Dilara KARSLIOĞLU Variation of parameters and Lipschitz-type stability in unperturbed differential systems with initial time difference
12:15-12:30	Coşkun YAKAR, Dilara KARSLIOĞLU Variation of parameters and Hölder stability of matrix differential systems with initial time difference
13:00-14:00	**Lunch**
Chair:	
14:00-14:15	
14:15-14:30	
14:30-14:45	
16:30-18:30	**Excursion (Boğaz Valide Sultan Gemi Turu)**
19:00	
HALL 102	
Chair: Nureddin TURKAN	

SCHEDULE OF LECTURES AND COMMUNICATIONS

11:15-11:30	Şeyma BARBAROS, Elif SAYGI Analysis of Technological Pedagogical Content Knowledge Studies in the Field of Mathematics Education
11:30-11:45	Mürvet BABAHASAN, Hatice Kübra GÜLER SELEK Investigation of Mathematical Literacy Activities Prepared by Preservice Teachers to Eliminate Misconceptions
11:45-12:00	Ö. Eda DEMİRCAN, Hüseyin DAĞ, Hayriye SUNDU PAMUK Investigating the medium effects on full charmonium meson molecules
12:00-12:15	Mehmet Burak BARTAN, Özlem TÜRKŞEN Decision Making About Installation Locations of Wind Power Plants in Çanakkale by Using Hierarchical Clustering for Spatial Point Data
12:15-12:30	
13:00-14:00	**Lunch**
Chair:	
14:00-14:15	
14:15-14:30	
16:30-18:30	**Excursion (Boğaz Valide Sultan Gemi Turu)**
19:00	

HALL 103

Chair: Sefa Anıl SEZER	
11:15-11:30	Rüçhan BIÇAK, Naim TUĞLU The Norms of Some Circulant Matrices Associated with Leonardo Polynomials
11:30-11:45	Emine ALBAŞ, Utku FİDAN A Note on Generalized Derivations in Prime Ring Satisfying an Identity on Lie Ideals
11:45-12:00	Pelin GÖKGÖZ A fixed point approach to the Dirichlet problem for the generalized Beltrami equation
12:00-12:15	Murat Yücel AY, Gözde BAYRAK, Mehmet Eyüp KİRİŞ, Tuğba AKÇA Trapezoid-Type Inequalities Involving Fractional Conformable Integrals via Co-Ordinated s-Convex Functions
12:15-12:30	Meltem UZUN Well-posedness of nonlinear stochastic wave propagation model with additive noise
13:00-14:00	**Lunch**
Chair: Uğur YİĞİT	
14:00-14:15	Mesut ÖZTÜRK, Cem KURDAL, Mustafa GÜLER, Pınar GÜNER, İsmail SARIKAYA A National Model Proposal for Metacognition-Based Mathematics Teaching: ÜSPİDMAT
14:15-14:30	Ayşe Nur TUNÇ, Sena ÖZEN YILDIRIM

SCHEDULE OF LECTURES AND COMMUNICATIONS

	A Research on Operators $Γ^{\wedge}(ψ\_Γ)$ and $〚ψ\_Γ〛^{\wedge}Γ$
14:30-14:45	
16:30-18:30	**Excursion (Boğaz Valide Sultan Gemi Turu)**
19:00	

HALL 104	

Chair: Bülent KARAKAŞ

11:15-11:30	Tuba AKYILDIZ, Sude SENYAZ, Bayram ŞAHİN Surfaces with Idempotent Shape Operator Matrix Defined Along a Surface Curve
11:30-11:45	Özlem DENİZ, Bayram ŞAHİN Locally Product Riemannian Manifolds with Constant Curvature
11:45-12:00	Bülent KARAKAŞ, Şenay BAYDAŞ Application Analysis of Orthogonal Markov Matrices
12:00-12:15	Gülay KORU YÜCEKAYA, Hatice ÇETİNKAYA, Anti-Involutions of Dual Elliptical Quaternions
12:15-12:30	Hatice ÇETİNKAYA, Gülay KORU YÜCEKAYA Involutions of Dual Elliptical Quaternions
13:00-14:00	**Lunch**

Chair: Betül HİÇDURMAZ

14:00-14:15	Ali Serdar NAZLIPINAR, Kübra EROL Comparison of an Epidemiological Model From a Deterministic and Stochastic Perspective
14:15-14:30	İlkem TURHAN ÇETİNKAYA A cubic spline approach for a crack problem in a transversely isotropic elastic layer
14:30-14:45	Sibel Koparal Applications on (p,q)- analog of the generalized hyperharmonic polynomials of order v
16:30-18:30	**Excursion (Boğaz Valide Sultan Gemi Turu)**
19:00-	

HALL 105	

Chair: Nureddin TURKAN

11:15-11:30	Anıl Burcu ÖZYURT SERİM Customer Segmentation via Unsupervised Learning: Applications of K-Means and Hierarchical Clustering

SCHEDULE OF LECTURES AND COMMUNICATIONS

11:30-11:45	Beyzanur ÇELİK, Güzel Elif YEŞLİKIR, İrem Tuğçe DAŞÇI, Ali ÇETİNKAYA, Mehmet Ali BARIŞKAN, Serkan GÖNEN, Gökçe KARACAYILMAZ, Deniz DAHMAN Machine Learning-Based Detection of Distributed Denial-of-Service (DDoS) Attacks
11:45-12:00	Hatice Pelin GÜLTEKİN, Serkan GÖNEN, Gökçe KARACAYILMAZ, Mehmet Ali BARIŞKAN, Uğur KAYA, Ayşe Nur BAYRAM, Utku YILDIZ AI-Enhanced Intrusion Detection Using the T-Pot Honeypot System
12:00-12:15	Elif SÖZEROĞLU, Tarık ÇAKAR, Serkan GÖNEN, Gökçe KARACAYILMAZ, Mehmet Ali BARIŞKAN Security Evaluation of IoT Systems in Smart Factories: A Fuzzy Data Envelopment Analysis Approach to RPL-Based Cyberattacks
12:15-12:30	Selinay ADAMHASAN, Binnur AKİF, Serkan GÖNEN, Mehmet Ali BARIŞKAN AI-Driven Detection and Mitigation of Cyberattacks on Siemens S7-1200 PLC Devices in Industrial Control Systems
13:00-14:00	**Lunch**
Chair: Emine CAN	
14:00-14:15	Hasan YILDIRIM, Serkan GÖNEN, Mehmet Ali BARIŞKAN, Gökçe KARACAYILMAZ, Ahmet Nail TAŞTAN, Ercan Nurcan YILMAZ Radio Frequency Security Risks in Low-Cost IoT Applications: Replay Attack Analysis and Mitigation in the 315/433 MHz Band
14:15-14:30	Ahmet Faruk GÖRMÜŞ, Serkan GÖNEN, Gökçe KARACAYILMAZ, H. Hüseyin SAYAN Sensor Processing Capacity of The Autonomous Task Computer İn Unmanned Aerial Vehicles and Performance Analysis of Decisions
14:30-14:45	Gülsevin KODALOĞLU, H. Hüseyin SAYAN, Hamdi Tolga KAHRAMAN, Yusuf SÖNMEZ, Sefa ARAS Passive Acoustic Localization of Surface Vessels Using Hydrophone Array Measurements
16:30-18:30	**Excursion (Boğaz Valide Sultan Gemi Turu)**
19:00	

SCHEDULE OF LECTURES AND COMMUNICATIONS

HALL 106 (Online)	
Chair: Ertan SÖNMEZ- Ahmet KILINÇ	
10:45-11:00	Daniel AINOOSON-NOONOO, Pallavi KHEDKAR Preferred Technologies Used For Teaching: Post Covid-19
11:00-11:15	Mahdi ZAREI, Hijran MIRZAYEVA, Zari DZALILOV Leveraging Generated Synthetic Data to Preserve Data Properties and Validate Clusters Using Cluster Number Optimization Technique
11:15-11:30	Nurettin DOĞAN, Ahmet Fatih KAZANKAYA A Chaotic Image Encryption Algorithm Based on Knight Tour and White Shark Optimizer
11:30-11:45	Jerry Danquah Fosu BAFFOUR, Mittal DESAI Integration of Generative AI in Mathematics Classroom: The Ghanaian Perspective
11:45-12:00	Mehmet Akif YETİM Variations of Domination In Partially Ordered Sets
12:00-12:15	Mahmut Sami ERDOĞAN A Non-Uniform Rational B-spline Approach for Nonparametric Cumulative Distribution Function Estimation
12:15-12:30	Ripa Güner TOPÇU Schur stability analysis of families of polynomials: Legendre polynomial
12:30-12:45	Murat Ramazan İLTAR, Emine CAN, Serpil GERDAN A Comparative Study of DEMATEL and AHP–TOPSIS in Maritime Accident Risk Factors
13:00-14:00	**Lunch**
14:15-14:30	Mehmet VURAL, Hanlar REŞİDOĞLU Spectral Properties of a Discontinuous Sturm–Liouville Operators with Eigen parameter in the Boundary Conditions
14:30-14:45	Chaimaa BENZAROUALA A fixed point theorem in gauge spaces and applications to Ulam-stability of delay differential equations
14:45-15:00	Anthony J. RIPA Formal Graphs
15:00-15:15	Pakize ERDOĞMUŞ Object Detection via Mathematical Point of View