

**14th International Congress
on
Computational and Applied Mathematics
(ICCAM2009)
29 September-2 October, 2009
Antalya, Turkey**

Congress Programme

29 September 2009, Tuesday

- 12:00-18:00** **Registration**
16:00-18:00 **Tutorial Session**
 Place: Hall 1
 - “Global Optimization In Practice”
Janos D. Pinter**18:30-20:00** **Welcome Cocktail**
 Place: Cocktail Hall

30 September 2009, Wednesday

- 08:30-09:00** **Registration**
09:00-09:30 **Opening Session**
 Place: Hall 1
 Welcome and Opening Talks
- 09:30-10:30** **Invited Talk Session**
 Place: Hall 1
 Chair: Marc Goovaerts
 - “Dependence Modelling With Copulas”
Roger B. Nelsen
- 10:30-11:00** **Tea-Coffee Break**
- 11:00-12:30** **Parallel Sessions 1**
- Session1.1: Applied Probability and Stochastic Processes I**
Place: Hall 1
Chair: Refail Kasimbeyli
 - Andrei Bourchtein, L. Bourchtein
Dependence of the PageRank vector on the artificial links
 - Serkan Eryilmaz, Funda Iscioglu
Multi-state system reliability under stress-strength setup
 - Agah Kozan, H. Tanil
On distributions of bottom m scores after ℓ th change
 - Guvenc Arslan
A Variant of the Choquet-Deny Theorem with Application to Characterizaiton
- Session1.2: Computational Methods in Physical and Social Sciences I**
Place: Hall 2
Chair: Masai Watanabe
 - Canan Bozkaya, Tulay Kocabiyik
Streamwise oscillations of a cylinder beneath a free surface: Part 1. Free surface effects on vortex formation modes
 - Canan Bozkaya, Tulay Kocabiyik
Streamwise oscillations of a cylinder beneath a free surface: Part 2. Free surface effects on fluid forces
 - Nail Akhmediev, J. M. Soto-Crespo, A. Ankiewicz
Rogue waves: power of mathematics in understanding the phenomenon
 - Ali Reza Ashrafi , M. Saheli
The Eccentric Connectivity Index of Nanotubes and Nanotori

Session1.3: Differential Equations I

Place: Hall 3

Chair: Bulent Karasozen

- Mesliza Mohamed, H.B. Thompson, M. Jusoh
First-Order Three-Point Boundary Value Problems at Resonance
- Pavel Krutitskii
Boundary value problems for the Helmholtz equation in domains bounded by closed curves and open arcs
- Adem Kilicman, Hassan Eltayeb, Fudziah Ismail
On the Partial Differential Equations with Non-Constant Cefficients and Convolution Method
- Gulnur Celik Kizilkan, Kemal Aydin
Step size strategies on the numerical integration of the systems of differential equations

Session1.4: Mathematical Programming I

Place: Hall 4

Chair: M.Fernanda P.Costa

- Eren Ozceylan, T. Paksoy
Modeling Facility Location and Supplier Selection with Supplier's Product Quality and Contract Fee for Strategic Supply Chain Design
- Sureyya Ozogur Akyuz, G. Ustunkar, G. W. Weber
On Numerical Optimization Methods for Infinite Kernel Learning
- Alireza Davoodi
A DEA based approach for solving the multiple objective shortest path problem
- Fatma Yerlikaya Ozkurt, G.W. Weber, A. Ozmen
Robustification of CMARS

Session1.5: Numerical Analysis and Software I

Place: Hall 5

Chair: Kuniyoshi Abe

- Suzan Cival Buranay, A.A. Dosiyevev
A high accurate difference-analytical method for solving Laplace's equation on polygons with nonanalytic boundary conditions
- Kamile Sanli Kula, Fatih Tank, Turkan Erbay Dalkilic
An Application of a New Fuzzy Robust Regression Algorithm to Actuarial Science
- Fudziah Ismail, A. Karimi, N. Md Ariffin, M. Abu Hassan
Comparison of Exponentially fitted Explicit Runge-Kutta methods for Solving ODEs
- Fereidoon Khadem, M. A. Fariborzi Araghi
Numerical Integration of a Fuzzy Riemann Double Integral

12:30-13:30

Lunch Break

13:30-15:45

Parallel Sessions 2

Session2.1: Approximation and Interpolation I

Place: Hall 1

Chair: Gulen B. Tunca

- Halil Gezer, H. Aktuglu
Statistical Convergence for Set-Valued Functions
- Elias Berriochoa, A. Cachafeiro
Hermite-Birkhoff interpolation problems on the roots of the unity
- Liping Yang, X. Xie
Weak and strong convergence theorems for a finite family of \mathbb{S} -asymptotically nonexpansive mapping
- Serife Bekar, H. Aktuglu
q-Statistical Convergence
- Anvarjon Ahmedov, Norashikin Abdul
Approximation of the functions from $\mathbb{S} \log^2(S^N)$ by Fourier-Laplace series
- Yunus Hassen, Barry Koren
A novel 2D finite-volume method for advection problems with embedded moving-boundaries

Session2.2: Numerical Linear Algebra I

Place: Hall 2

Chair: Marc Goovaerts

- Venancio Tomeo, Jesus Abderraman
Explicit Representation of Hessenbergians: Application to General Orthogonal Polynomials
- Fatih Yilmaz, Humeyra Kiyak, Irem Gurses, Mehmet Akbulak, Durmus Bozkurt
The Powers of Anti $(2k+1)$ -Diagonal Matrices and Fibonacci Numbers
- Fatih Yilmaz, Humeyra Kiyak, Irem Gurses, Mehmet Akbulak, Durmus Bozkurt
On computing powers for one type of matrice by Pell and Jacobsthal Numbers
- Hasan Huseyin Gulec, N. Taskara, K. Uslu
On the properties of generalized Fibonacci and Lucas numbers with binomial coefficients
- Seiji Fujino, Y. Kusakabe, M. Harumatsu
IDR-based relaxation methods for solving linear systems
- Kensuke Aishima, T. Matsuo, K. Murota, M. Sugihara
A Shift Strategy for Superquadratic Convergence in the dqds Algorithm for Singular Values

Session2.3: Optimization I

Place: Hall 3

Chair: Ana Maria A.C.Rocha

- Lino Costa, Isabel Espírito Santo, Edite M.G.P. Fernandes
A Hybrid Genetic Pattern Search Augmented Lagrangian Method for Constrained Global Optimization
- Herman Mawengkang
Production Planning under Stochastic Demand for Fish Processed Product at North Sumatera Province, Indonesia
- Mahnaz Mirbolouki, F. Hosseinzadeh Lotfia, N.Nematollahi, M.H. Behzadi, M.R. Mozaffari
Centralized Resource Allocation with Stochastic Data
- Ana Maria A. C. Rocha, Tiago F. M. C. Martins, Edite M. G. P. Fernandes
On the augmented Lagrangian methodology in a population based global optimization algorithm
- Eman Hamad Al-Shemas, A. Hamdi
A Regularized Modified Lagrangian Method for Nonlinearly Constrained Monotone Variational Inequalities
- Miguel Gabriel Villarreal-Cervantes, Carlos Alberto Cruz-Villar, Jaime Alvarez-Gallegos
A new multiobjective differential evolution strategy for scattering uniformly the Pareto solution set for designing mechatronic systems

Session2.4: Special Functions

Place: Hall 4

Chair: Patricia J.Y.Wong

- Lidia Fernandez, T. E. Perez, M. A. Pinar
On Koornwinder classical orthogonal polynomials
- Rabia Aktas, A. Altın, F. Taşdelen Yeşildal
A note on a family of two variable polynomials
- Cem Kaanoglu, Mehmet Ali Ozarslan
Some generalizations of multiple Hermite polynomials via Rodrigues formula
- Emine Ozergin, M.A. Ozarslan, A. Altin
Extension of Gamma, Beta and Hypergeometric Functions
- Onur Karaoglu, Ayse Betul Koc, Haldun Alpaslan Peker, Yildiray Keskin, Yucl Cenesiz, Galip Oturanc, Sema Servi
Application of Padé approximation of differential transform method to the solution of prey and predator problem
- Pablo Sanchez-Moreno, A. Zarzo, J.S. Dehesa
Jensen divergence based on Fisher's information

Session2.5: Statistics and Data Analysis I

Place: Hall 5

Chair: Ismihan Bayramoglu

- Mustafa Cagatay Korkmaz, Coskun Kus, Asir Genc
Weibull-Negative Binomial Distribution
- Yeliz Mert Kantar, Birdal Senoglu, Omer L. Gebizlioglu
Comparison of a New Robust Test and Non-parametric Kruskal-Wallis Test in One-way Analysis Of Variance Model
- Neslihan Iyit, A. Genc

General Linear Model (GLM) Approach to Repeated Measurements Data Involving Univariate Analysis of Variance (ANOVA) and Multivariate Analysis of Variance (MANOVA) Techniques

- Alper Sinan, A. Genc
Comparing Estimation Results in Nonparametric and Semiparametric Models
- Noor Akma Ibrahim, N. Poh Bee
Confidence Intervals for Mean Time to Failure in Two-Parameter Weibull with Censored Data
- Tutut Herawan, Mustafa Mat Deris
Rough Set-based Functional Dependency Approach for Clustering Categorical Data

15:45-16:15

Tea-Coffee Break

16:15-18:30

Parallel Sessions 3

Session 3.1: Mathematical Modeling, Analysis, Applications I

Place: Hall 1

Chair: Alejandro Zarzo

- Turkan Erbay Dalkilic, Aysen Apaydin
Parameter Estimation by ANFIS in Cases Where Outputs are Non-Symmetric Fuzzy Number
- Fatemesadat Salehi S.M.H. Karimian, H. Alisadeghi
A Multizone Overset Algorithm for the Solution of Flow around Moving Bodies
- Nihal Yokus, E. Bairamov
Spectral Singularities of Sturm-Liouville Problems with Eigenvalue Dependent Boundary Conditions
- Zeynep Eken, S.Sezer
Vague DeMorgan Complemented Lattices
- Zainidin Karimovich Eshkuvatov
Approximating the singular integrals of Cauchy type with weight function on the interval
- Bulent Karasozen, Ayhan Aydin
Lobatto IIIA-III B Discretization for the Strongly Coupled Nonlinear Schrödinger Equation

Session 3.2: Approximations and Interpolation II

Place: Hall 2

Chair: Miguel Angel Fortes

- Hussain Mohammed Al-Qassem, L. Cheng, Y. Pan
Rough oscillatory singular integrals on \mathbb{R}^n
- Raffaele D'Ambrosio, E. Esposito, B. Paternoster
Exponentially fitted two-step hybrid methods for $y''=f(x,y)$
- Nazri Mohd Nawji, Rozaida Ghazali, Mohd Najib Mohd Salleh
Improving the Gradient based search Direction to Enhance Training Efficiency of Back Propagation based Neural Network algorithms
- F. Tasdelen Yesildal, Gurhan Icoz
On Linear positive operators including q-Konhauser Polynomials
- Veronica Biga, Daniel Coca, Visakan Kadirkamanathan, Stephen A. Billings
An Alternative Region-Based Active Contour Model Using Cauchy-Schwartz Divergence
- Gulen Bascanbaz Tunca, Yalcin Tuncer
On Chlodovsky variant of multivariate beta operator

Session 3.3: Nonlinear Equations and Mathematical Modeling

Place: Hall 3

Chair: Ersan Akyıldız

- Enes Yilmaz, M. U. Akhmet, D. Arugaslan
Stability analysis of recurrent neural networks with deviated argument of mixed type
- Turgut Tollu, N. Taskara, K. Uslu
The Periodicity of Solutions of a Rational Difference Equations $x(n+1)=\frac{p(n).x(n-k)+x(n-(k+1))}{q(n)+x(n-(k+1))}$ with $(k+1)$ th Periodic Coefficients
- Emine Hekimoglu, N. Taskara, K. Uslu
On the behavior of solutions of a rational system $x(n+1)=1/[y(n-1)]$, $y(n+1)=x(n-1)/[x(n).y(n-2)]$
- Behzad Ghanbary, Jafar Biazar
A modification on some improved Newton's method without direct function evaluations
- Patricia J. Y. Wong, Fengmin Chen
Error Inequalities for Discrete Hermite Interpolation
- Josep Arnal
Parallel Newton-like methods for solving systems of nonlinear equations

Session 3.4: Computational Methods in Physical and Social Sciences II

Place: Hall 4

Chair: Jose M. Matias

- Demet Ersoy, V. Yakhno
Deriving Elastic Fields in an Anisotropic Bi-material
- Sengul Kecelli, V. Yakhno
A Boundary Value Problem of the Frequency-Dependent Maxwell's System for Layered Materials
- Sevgi Yurt Oncel, Omer L. Gebizlioglu, Fazil Aliyev
Multiple Logistic Regression A Study on the Multiple Logistic Regression Analysis To Determine Risk Factors For The Smoking Behavior
- Yoji Otani, M. Watanabe, L. Ying, K. Yamamoto, Hashentuya
Numerical simulation of tsunami generated in North Pacific Ocean near Japan
- Ata Olah Abbasi, B. Vosoughi Vahdat
A new numerical method for solving 2D Electrical Impedance Tomography Inverse Problem
- Tertia Delia Nova, H. Mawengkang, M. Watanabe
Control strategy of avian influenza based on modeling and simulation

Session 3.5: Mathematical Programming II

Place: Hall 5

Chair: Venancio Tomeo

- Eren Ozceylan, T. Paksoy, N.Y. Pehlivan
Fuzzy Optimization of A Multi Stage Multi Item Closed-Loop Flexible Supply Chain Network Under Fuzzy Material Requirement Constraints
- Gerhard-Wilhelm Weber, E. Kropat, C.S. Pedomallu
Identification, Optimization and Dynamics of Regulatory Networks under Uncertainty
- Erkki Laitinen, I. Konnov, O. Kashina
Multi-Criteria Optimization for Distribution of Spatial Resources
- Mahnaz Mirbolouki, F. Hosseinzadeh Lotfi, G.R. Jahanshahloo, M.H. Behzadi
Finding Efficient and Inefficient Outlier Layers by Using Skewness Coefficient
- Hendaru Sadyadharma, Z. Nasution, H. Mawengkang
Multi-Objective Optimization Model for Solving Risk-Based Environmental Production Planning Problem in Crude Palm Oil Industry
- Sacha Varone, David Schindl
Staff scheduling with priority constraints

1 October 2009, Thursday

09:00-10:00

Invited Talk Session

Place: Hall 1

Chair: Gerhard Wilhelm Weber

- "NULISS: Non-Uniform Local Interpolatory Subdivision Surfaces"

Lucia Romani

10:00-10:30

Tea-Coffee Break

10:30-12: 45

Parallel Sessions 4

Session 4.1: Mathematical Modeling, Analysis, Applications II

Place: Hall 1

Chair: Alireza Ashrafi

- Fatma Tasdelen Yesildal, Burak Sekeroglu, H.M. Srivastava
Some Properties of Q-Biorthogonal Polynomials
- İsmail Yaslan
Positive solutions for nonlinear first-order m-point boundary value problem on time scale
- Fengmin Chen, Patricia J. Y. Wong
Error Estimates for Discrete Spline Interpolation
- Masaji Watanabe, F. Kawai
Computational analysis for microbial depolymerization processes of xenobiotic polymers based on mathematical models and experimental results
- Tahir Khaniev, I. Unver, Z. Mammadova
Asymptotic Results for a Semi-Markovian Random Walk with a Normal Distributed Interference of Chance

- Mustafa Kahraman, Nurgul Gokgoz, Hakan Oktem
A Model of Vascular Tumor Growth by Hybrid Systems

Session 4.2: Applied Probability and Stochastic Processes II

Place: Hall 2

Chair: Roger B. Nelsen

- M.R. Akramin M. Mazwan Mahat, A. Juliawati, A.H. Ahmad, A.R.M. Rosdzimin
Probability Failure Analysis for Cracked Structure
- Burak Uyar, H. Tanil
On exceedances based on the list of top m scores after ℓ th change
- Jose M. Matias, T. Rivas, C. Ordonez, J. Taboada
Functional Approach Using New $\{a^{\ast}\}b^{\ast}\}$ color functions to evaluate colour changes in granites after desalination using different methods
- Ceren Eda Can, M. Rainer
On LIBOR and swap market models: calibration to caps and swaption markets
- Zhaoning Shang, Marc Goovaerts
Analytical Recursive Algorithm for Path-dependent Option Pricing with Stochastic Time
- Rovshan Aliyev, T.Kesemen, T.Khaniyev
On the Semi-Markovian Random Walk with Delay and Weibull Distributed Interference of Chance

Session 4.3: Computational Methods in Physical and Social Sciences III

Place: Hall 3

Chair: Hassan Yousefi-Azari

- Jisheng Kou, Xiuhua Wang, Yitian Li
A nonlinear preconditioner for Jacobian-free Newton-Krylov methods
- Ludmila Bourchtein, Andrei Bourchtein
A splitting semi-implicit scheme for large-scale atmospheric dynamics model
- Dogan Yildiz, Atif Evren
Multilevel Factor Modeling as an Alternative in Evaluating the Performance of Statistics Education in Turkey
- Selcuk Han Aydin, M. Tezer Sezgin
Stabilized FEM Solution of Steady Natural Convection Flow in a Square Cavity
- Hanieh Khalili Param, F. Bazdidi
Investigation of Large Eddy Simulation and Eddy-Viscosity Turbulence Models Applicable to Film Cooling Technique
- Eun Heui Kim, C. Lee, B. Englert
Transonic problems in multi-dimensional conservation laws

Session 4.4: Mathematical Programming III

Place: Hall 4

Chair: Herman Mawengkang

- Masoud Allame, B. Vatankhahan, S. Abbasbandy
Modified iteration methods to solve system $Ax=b$
- Eren Ozceylan, T. Paksoy
A Multi-Objective Mixed Integer Programming Model for Multi Echelon Supply Chain Network Design and Optimization
- Ali Osman Cibikdiken, Kemal Aydin
Effect of Floating Point Arithmetic on Monodromy Matrix Computation of Periodic Linear Difference Equation System
- Mohammad Hassan Behzadi, F. Hosseinzadeh Lotfi, N. Nematollahi, M. Mirbolouki
Ranking Decision Making Units with Stochastic Data by Using Coefficient of Variation
- Gurkan Ustunkar, S. Özögür-Akyüz, U. Sezerman, G. W. Weber, N. Baykal
Application of Advanced Machine Learning Methods For SNP Discovery in Complex Disease Association Studies
- Ulas Ozen, S. A. Tarim, M. K. Dogru, R. Rossi
An Efficient Computational Method for Non-Stationary (R,S) Inventory Policy with Service Level Constraints

Session 4.5: Statistics and Data Analysis II

Place: Hall 5

Chair: Fatih Tank

- Senol Erdogmus, E. Koc, S. Ayhan
A Comprehensive Kansei Engineering Algorithm: An application of the university web page design

- Guvenc Arslan, I. Ozmen, B.O. Turkoglu
A JAVA Program for the Multivariate Z_p and C_p Tests and Its Application
 - Ovgu Cidar, Y. Tandogdu
Smoothing the Covariance Based on Functional Principal Component Analysis
 - Yu cel Tandogdu
Functional Predictor and Response Variables Under Non-Gaussian Conditions
 - Mustafa Cagatay Korkmaz, Coskun Kus, Asir Genc
Exponential-Negative Binomial Distribution
 - Tutut Herawan, Mustafa Mat Deris
Soft Set Theory for Maximal Association Rules Mining
- 12:45-13:45 Lunch Break**
- 13:45-14:45 Invited Talk Session**
Place: Hall 1
Chair: Omer L. Gebizlioglu
- “Ordered Random Variables-Recent Developments”
Ismihan Bayramoglu
- 15:30-19:00 Tour to the old town fortress/marina and museum visit**
- 20:00 Congress Dinner**

2 October 2009, Friday

- 09:00-10:30 Parallel Sessions 5**
- Session 5.1: Mathematical and Computational Finance**
Place: Hall 1
Chair: Jan Dhaene
- Koen Van Weert, Jan Dhaene, Marc Goovaerts
Approximations for Optimal Portfolio Selection Problems
 - Gerhard-Wilhelm Weber, Kasirga Yildirak, Efsun Kurum
A Classification Problem of Credit Risk Rating Investigated and Solved by Optimization of the ROC Curve
 - Muhammed-Shahid Ebrahim, Ike Mathur
Structuring Pension Funds Optimally
 - Refail Kasimbeyli, G. Ozturk, O. Ustun
Multi-class classification algorithms based on polyhedral conic functions and application to companies listed on the Istanbul Stock Exchange
- Session 5.2: Cryptography**
Place: Hall 2
Chair: Ersan Akyıldız
- Ferruh Ozbudak, M. Cenk
Efficient Multiplications in $\mathbb{F}_{5^{5n}}$ and $\mathbb{F}_{7^{7n}}$
 - Baris Bulent Kirlar
On the elliptic curves $y^2=x^3-c$ with embedding degree one
 - Mohammed Mahmoud Jaradat
On the basis number of the lexicographic product of two graphs and some related problems
 - Frank J. Kampas, Janos D.Pinter
Nonlinear Optimization in Mathematica with MathOptimizer
- Session 5.3: Differential equations II**
Place: Hall 3
Chair: Josep Arnal
- Muhammad Asif Gondal, A. Ostermann
Exponential Runge–Kutta methods for option pricing in jump-diffusion models
 - Mesliza Mohamed, M. Jusoh
Discrete First-Order Four-Point Boundary Value Problem
 - Yu cel Cenesiz, Y. Keskin, A. Kurnaz
The Solution of the Bagley-Torvik Equation with the Generalized Taylor Collocation Method

- Ahmet Duman, Kemal Aydin
Sensitivity of Schur Stable Linear Systems with Periodic Coefficients

Session 5.4: Numerical Linear Algebra II

Place: Hall 4

Chair: Serkan Eryilmaz

- Maxim Naumov, A. Bourchtein
On the Modification of an Eigenvalue Problem that Preserves an Eigenspace
- Kuniyoshi Abe, G. L. G. Sleijpen
A Variational Algorithm of the GPBi-CG Method for Solving Linear Systems
- Soheil Salahshour, Tofigh Allahviranloo
Fully fuzzy linear system: New point of view
- Tofigh Allahviranloo, Soheil Salahshour
Fuzzy Linear System: Satisfactory Level of Solution

Session 5.5: Approximation and Interpolation III

Place: Hall 5

Chair: Dmitri V. Alexandrov

- Havva Kaffaoglu, N. Mahmudov
On q -Szász--Durrmeyer Operators
- M. Cetin Kocak
Ostrowski's Fourth-order Iterative Method Solves Cubic Equations of State
- Hatice Gul Ince, G. Bascanbaz Tunca, A. Ercin
On Bivariate Bernstein-Chlodovsky Operator
- Yoseph Hashemi, A. Jahangirian
Implicit Fully Mesh-Less Method for Compressible Viscous Flow Calculations

10:30-11:00

Tea-Coffee Break

11:00-12:30

Paralel Sessions 6

Session6.1: Applied Probability and Stochastic Processes III

Place: Hall 1

Chair: Kasirga Yildirak

- Mustafa Kemal Dogru, G.J. van Houtum, A.G. de Kok
News vendor Characterizations for One-Warehouse Multi-Retailer Inventory Systems with Discrete Demand under the Balance Assumption
- Ismail Kinaci, B. Saracoglu
Modified Maximum Likelihood Estimators for Logistic Distribution under Type-II Progressively
- Azizah Hanim Nasution, A. Syahrin, H. Mawengkang
Modeling Coordination Relationships of School Communities to Achieve Environmental Behavior Using Influence Diagram
- Vilda Purutcuoglu, M. L. Tiku
Testing unit root and comparison of estimates

Session6.2: Computational Methods in Physical and Social Sciences IV

Place: Hall 2

Chair: Lucia Romani

- Dmitri V. Alexandrov, A.P. Malygin, I.V. Alexandrova
Nonlinear Dynamics of Leads
- Reza Zolfaghari
An Inverse Problem of Finding Control Parameter in a Parabolic Equation
- Mohammad Moalemi, F. Bazdidi
Analysis of Laminar Film Boiling on a Vertical Surface Using a Coupled Level-Set and Volume-of-Fluid Technique
- Hassan Yousefi-Azari, A.R. Ashrafi, M.H. Khalifeh
Topological Indices of Graph Operations

Session6.3: Quadrature and Integral Equations

Place: Hall 3

Chair: Tahir Khaniyev

- Nik Mohd Asri Nik Long, M. Yaghobifar, Z. K. Eshkuvatov
New approach for the construction of the solutions of Cauchy integral equation of the first kind
- Mohammad Ali Fariborzi Araghi, Sh. Sadigh Behzadi

The Use of variational iteration method to Solve a nonlinear Volterra-Fredholm integro-differential equations

- Tomoaki Okayama, T. Matsuo, M. Sugihara
Modified Sinc-collocation methods for Volterra integral equations of the second kind and their theoretical analysis
- Nagehan Akgun, M. Tezer Sezgin
Differential Quadrature Solution of 2D Natural Convection in a Cavity Under a Magnetic Field

Session6.4: Mathematical Modeling, Analysis, Applications III

Place: Hall 4

Chair: Seiji Fujino

- Abdelouahed Kouibia , M. Pasadas
Approximation by div-rot variational splines
- Bulent Karasozen, Fikriye Yilmaz
Solving Distributed Optimal Control Problems for the Unsteady Burgers Equation in COMSOL Multiphysics
- Farnaz Derakhshan
Formalizing Dynamic Assignment of Rights and Responsibilities to Agents
- Ali Deliceoglu, F. Gurcan
Topology of two separation bubbles with opposite rotations in a double-lid-driven rectangular cavity

Session6.5: Numerical Analysis and Optimization

Place: Hall 5

Chair: Janos D. Pinter

- Adigozal Dosiyev
The Block-Grid Method for Solving Laplace's Boundary Value Problem with Singularities
- Johan Hendrik DeKlerk
Analytical and numerical evaluation of finite-part integrals
- Nematollah Fouladi, M. Darbandi
Automatic Zone Decomposition in Iterative Solution of Differential Equations over Unstructured Grids
- Alireza Naderi, M. Darbandi
An Extended Implicit Pis Scheme to Efficient Simulation of Turbulent Flow with Moving Boundaries

12:30-13:30

Lunch Break

13:30-16:10

Paralel Sessions 7

Session 7.1: Optimization II

Place: Hall 1

Chair: Gerhard W. Weber

- Jorge A. Ruiz-Vanoye, Joaquín Pérez-Ortega, Rodolfo A. Pazos R., Ocotlán Díaz-Parra
Survey of Polynomials Transformations between NP-Complete problems
- Jorge A. Ruiz-Vanoye, Joaquín Pérez-Ortega, Rodolfo A. Pazos R., Ocotlán Díaz-Parra
Application of Formal Languages in the Polynomial Transformations of Instances Between Np-Complete Problems
- Serap Kemali, Gabil R. Adilov
Some Inequalities for Increasing Positively Homogeneous Functions
- Aydin Karakoca, A. Genc
A Comparative Study on Parameter Estimations in Multivariate Nonlinear Model
- M. Fernanda P. Costa, Edite M.G.P. Fernandes, A. Ismael F. Vaz
Interior point filter line search strategies for large scale optimization: practical behavior
- Farhad Hosseinzadeh Lotfi, H. Nikoomaram, A. Toloie Eshlaghy, M.A. Afshar Kazemi, R. Sharifi, M. Ahadzadeh Namin
Interval Malmquist productivity in DEA analysis and its application in determining the regress and progress of Islamic Azad university's departments
- Radek Matousek, Martin Kuba
HC12-Highly Scalable Optimization Algorithm

Session 7.2: Mathematical Modeling, Analysis, Applications IV

Place: Hall 2

Chair: Andrei Bourchtein

- Atif Evren, Dogan Yildiz
Parameter Interval Estimations through Chebyshev- type inequalities for Nonlinear Regression Models
- Alejandro Zarzo, L. Fernandez, P. Martinez-Gonzalez, B. Soler
Special functions, non-linearity and algebraic and differential properties: Computational aspects.
- Zubeyde Ulukok, Ramazan Turkmen
Trace Inequalities for Matrices
- Mine Menekse Yilmaz, Sevilay Kirci Serenbay
The Convergence of Family of Integral Operators with Positive Kernel
- Miguel Angel Fortes, P. Gonzalez, M. Pasadas
Approximation of patches by C^r -finite elements of Powell-Sabin type
- Alejandro Fuentes-Penna, Jorge A. Ruiz-Vanoye, Ocotlán Díaz-Parra
Application of Formal Languages in the Polynomial Transformations of Instances Between Np-Complete Problems
- Farhad Hosseinzadeh Lotfi, A.Toloie Eshlagy, M.R. Mozaffari, Z. Ghalej Beigi, K.Gholami
Large Sensitivity of Ranking

Session 7.3: Probability Modeling and Computing

Place: Hall 3

Chair: Birdal Senoglu

- Mohammad Khodabakhshi
Super efficiency in stochastic data envelopment analysis: An input relaxation approach
- Sukru Acitas, Birdal Senoglu
Two Level Fractional Factorials with Long-Tailed Symmetric Error Distributions
- Alvaro Rodolfo De Pierro, E.X. Miqueles
X-ray Fluorescence Computed Tomography: Inversion Methods
- Anders Andersson, B. Nilsson
Using Dirichlet-to-Neumann operators and Conformal Mappings with Approximate Curve Factors in Waveguide Problems
- Mila Milan Stojakovic
Imprecise probability and application in finance
- Mehdi Zamani
An Efficient 2-D Model for Analysis of Nonuniform Rock Masses

Session 7.4: Mathematical Modeling and Data Analysis

Place: Hall 4

Chair: Pablo Sanchez-Moreno

- Tugba Sarac
A new hybrid algorithm for quadratic knapsack problem
- Ahmet Pekgör, A. Genc
Criteria Function Efficiency Against Outliers in Nonlinear Regression
- Nergiz Kasimbeyli, Tugba Sarac
A two-objective integer programming mathematical model for a one-dimensional assortment problem
- A. Asgharzadeh, R. Valiollahi
Estimation of reliability $P(Y < X)$ for the proportional reversed hazard models using lower record data
- Ceren Eda Can, N. Erbil, G. W. Weber
Libor Market Model as a Special Case of Parameter Estimation in Nonlinear Stochastic Differential Equations (SDEs)
- Koray Kalafatcilar, Yilmaz Akdi, Kivılcım Metin-Özcan
Alternative Long-run analysis of Services and Goods Sectors Inflation in Turkey by Fractional and Asymmetric Cointegration Methods
- Seyhmus Yardımcı
Some Relations Between Functionals On Bounded Real Sequences

Session 7.5: Mathematical Modeling and Computing

Place: Hall 5

Chair: Guvenc Arslan

- Shamsul Qamar, S. Mukhtar, S. Noor, A. Seidel-Morgenstern
Efficient numerical techniques for solving batch crystallization models
- Handan Cerdik Yaslan, Valery G. Yakhno
Equations of anisotropic elastodynamics as a symmetric hyperbolic system: deriving the time-dependent Green's function
- Abbas Toloie Eshlaghy, Mohammadali Afshar Kazemi, Ebrahim Nazari Farokhi, Bahareh Sagheb
Measuring the importance and the weight of decision makers
- Abbas Toloie Eshlaghy, Nasim Rastkhiz Paydar, Khadijeh Joda, Neda Rastkhiz Paydar
Sensitivity analysis for criteria values in decision making matrix of SAW method
- Modjtaba Ghorbani, A.R. Ashrafi, M. Saheli
Rational Eigenvalues of Fullerenes
- G.H. Fath-Tabar, A.R. Ashrafi
Bounds on Estrada Index of Fullerenes
- Sinem Sezer, Ilham A. aliev
A Characterization of the Riesz Potentials Space With the Aid of a Composite Wavelet Transform

16:10-16:30

Tea-Coffe Break

16:30-17:00

Closing Session

Place: Hall 1

Information and Closing Talks