

## AMAT 2012 CONFERENCE PROGRAM

**MAY 17, 2012 (THURSDAY):**

**09:00-09:45** Registration [Place: Conference Hall]

**09:45-10:15** Opening Ceremony [Room: Continuity]

**10:15-11:00** Invited Lecture [Room: Continuity]

**Chair:** Oktay Duman

**Speaker:** George A. Anastassiou

*"On neural networks approximation"*

**11:00-11:30** Coffee-Tea-Cookies Break [Place: Conference Hall]

**11:30-12:30** Session 1-A (4 talks) [Room: Limit]

**Chair:** Margareta Heilmann

- P. N. Agrawal and Karunesh Kumar Singh

*" $L_p$ -Saturation Theorem for an Iterative Combination of Bernstein-Durrmeyer Type Polynomials"*

- Neha Bhardwaj and Naokant Deo

*"A Better Error Estimation On Mixed Summation-Integral Operators"*

- Tuba Vedi and Mehmet Ali Özarlan

*"Some Properties of  $q$ -Bernstein Schurer Operators"*

- Mao-Ting Chien and Hiroshi Nakazato

*"Constructions of determinantal representation of trigonometric polynomials"*

**11:30-12:30** Session 1-B (4 talks) [Room: Continuity]

**Chair:** Ömer Akin

- Haifa H. Ali and Fawzi Abdelwahid

*"A Modified Adomian Approach Applied to Nonlinear Fredholm Integral Equations"*

- Akhilesh Prasad and Manish Kumar

*"Boundedness of pseudo-differential operator involving fractional Fourier transform"*

- Hüseyin Yüce and Chang Y. Wang

*"Fundamental eigenvalues of biharmonic equations on circularly periodic domains"*

- Türker Ertem and Ağacık Zafer

*"Prescribed asymptotic behavior of solutions of second-order nonlinear differential equations"*

**11:30-12:30** Session 1-C (4 talks) [Room: Derivative]

**Chair:** Tahir Khaniyev

- Mohamed Yusuf Hassan

*"Skewed Bimodal Laplace Distribution"*

- Fatah Benatia and Djebane Yahia  
*"Nonlinear wavelet regression function estimator for censored data under  $\alpha$ -mixing condition"*
- Rassoul Abdelaziz  
*"Reduced bias of the mean for a heavy-tailed distribution"*
- Erna T. Herdiani and Maman A. Djauhari  
*"Asymptotic Distribution of Vector Variance Standardized Variables without Duplications"*

**12:30-14:00** **Lunch Break** [Place: Lunch Area]

**14:00-14:45** **Invited Lecture** [Room: Continuity]

**Chair: George A. Anastassiou**

**Speaker: Cihan Orhan**

*"Weak Filter Convergence for Unbounded Sequences"*

**14:45-15:00** **Coffee-Tea Break** [Place: Conference Hall]

**15:00-16:00** **Session 2-A (4 talks)** [Room: Limit]

**Chair: Sofiya Ostrovska**

- Igor Neygebauer  
*"Differential MAC Models in Continuum Mechanics and Physics"*
- Sunita Daniel and P. Shunmugaraj  
*"An Approximating Non-stationary Subdivision Scheme for Designing Curves"*
- Tarik S. T. Ali  
*"Sigma Mass Dependence Of Static Nucleon Properties From Linear Sigma Model"*
- Dalah Mohamed  
*"The Matlab Codes to Solves the Static Bending of a Linear Elastic Beam"*

**15:00-16:00** **Session 2-B (4 talks)** [Room: Continuity]

**Chair: Gusein Sh. Guseinov**

- Tahar Haddad and Touma Haddad  
*"State Dependent Sweeping Process with Perturbation"*
- Assia Guezane-lakoud and Nouri Boumaza  
*"Boussinesq equation with a non classical condition"*
- Ahcene Merad  
*"A Method of Solution for Integro-differential Parabolic Equation with purely integral Conditions"*
- Tatiana F. Filippova  
*"Approximation Techniques in Impulsive Control Problems for the Tubes of Solutions of Uncertain Differential Systems"*

**15:00-16:00 Session 2-C (4 talks) [Room: Derivative]**

**Chair: Ceren Vardar**

- Qais Mustafa  
*"Comparing the Box - Jenkins models before and after the wavelet filtering in terms of reducing the orders with application"*
- Sizar Abed Mohammed  
*"Comparing Some Robust Methods with OLS Method in Multiple Regression with Application"*
- Henning Laute and Ayad M. Ramadan  
*"New Approach for Multidimensional Scaling with Categorical Data"*
- Buslaev A.P., Tatashev A.G. and Yashina M.V.  
*"On Properties of the NODE System Connected with Cluster Traffic Model"*

**16:00-16:30 Coffee-Tea-Cookies Break [Place: Conference Hall]**

**16:30-17:15 Session 3-A (3 talks) [Room: Limit]**

**Chair: Jerry L. Bona**

- Tomasz Rychlik  
*"Optimal inequalities for linear functions of monotone sequences"*
- Heinz-Joachim Rack  
*"Extensions of I. Schur's Inequality for the Leading Coefficient of Bounded Polynomials with One or Two Prescribed Zeros"*
- Tamás Varga  
*"Lower and Upper Estimate for Christoffel-function associated with a doubling measure on a quasismooth curve or arc"*

**16:30-17:15 Session 3-B (3 talks) [Room: Continuity]**

**Chair: Martin Bohner**

- G.Y. Mehdiyeva and A.Yu. Aliyev  
*"Difference scheme of higher accuracy order for solution of the Dirichlet's problem"*
- Tamaz Vashakmadze  
*"To Approximate Solution of Ordinary Differential Equations"*
- Michael K Wilson and Aihua Li  
*"Solving Second Order Discrete Sturm-Liouville BVP Using Matrix Pencils"*

**16:30-17:15 Session 3-C (3 talks) [Room: Derivative]**

**Chair: Kenan Taş**

- Agapitos N.Hatzinikitas  
*"Fractional Schrödinger operators in one-dimension"*

- Gusein Sh. Guseinov  
*"Inverse Spectral Problems for Complex Jacobi Matrices"*
- Abdalla Tallafha  
*"Open Problems in Semi-linear Uniform Spaces"*

**17:15** **END OF THE LECTURES of 1<sup>ST</sup> DAY**

**MAY 18, 2012 (FRIDAY):**

**09:45-10:15** **Registration [Place: Conference Hall]**

**10:15-11:00** **Invited Lecture [Room: Continuity]**

**Chair: Martin Bohner**

**Speaker: Jerry L. Bona**

*"Theory and application of water wave models"*

**11:00-11:30** **Coffee-Tea-Cookies Break [Place: Conference Hall]**

**11:30-12:30** **Session 4-A (4 talks) [Room: Limit]**

**Chair: Heinz-Joachim Rack**

- Farzollah Mirzapour and Ali Morassaei  
*"Harmonic-Geometric-Arithmetic Mean Inequality of Several Positive Operators"*
- Aisha Ahmed Amer and Maslina Darus  
*"On Univalence of a General Integral Operator"*
- Nagat Muftah Mustafa and Maslina Darus  
*"Some Extensions of Sufficient Conditions for Univalence of an Integral Operator"*
- Shilpi Jain and Praveen Agarwal  
*"On Applications of Fractional Calculus Involving Summations of Series"*

**11:30-12:30** **Session 4-B (4 talks) [Room: Continuity]**

**Chair: Elvan Akin-Bohner**

- Mohammed Al-Refai  
*"Basic Results of Nonlinear Eigenvalue Problems of Fractional Order"*
- Hilmi Ergoren and M. Giyas Sakar  
*"Boundary value problems for impulsive fractional differential equations with non-local conditions"*
- Weiping Zhong, Xiaojun Yang and Feng Gao  
*"A Cauchy Problem for Some Local Fractional Abstract Differential Equation with Fractal Conditions"*
- Mengke Liao, Xiaojun Yang and Qin Yan  
*"A new viewpoint to Fourier analysis in fractal space"*

**11:30-12:30 Session 4-C (4 talks) [Room: Derivative]**

**Chair: Tahir Khaniyev**

- Ali S. Yousef  
*"Edgeworth Approximation for Some Distributions in Business And its Application in the Black-Scholes Option Pricing Model"*
- Aurelija Kasparavičiūtė and Leonas Saulis  
*"Approximation of small probabilities of the sums of random number of summands"*
- Marijus Radavicius and Pavel Samusenko  
*"Testing problems for sparse contingency tables"*
- A.P. Buslaev and A.G. Tatashev  
*"On exact values of monotonic random walks characteristics on lattices"*

**12:30-14:00 Lunch Break [Place: Lunch Area]**

**14:00-14:45 Invited Lecture [Room: Continuity]**

**Chair: Cihan Orhan**

**Speaker: Martin Bohner**

*"The Spectrum of a q-Difference Operator"*

**14:45-15:00 Coffee-Tea Break [Place: Conference Hall]**

**15:00-16:00 Session 5-A (4 talks) [Room: Limit]**

**Chair: Cihan Orhan**

- Reyhan Canatan  
*"Statistical Approximation of Truncated Operators"*
- Ceylan Turan and Oktay Duman  
*"Statistical convergence on time scales"*
- Ferenc Móricz and Zoltán Németh  
*"Statistical extension of some classical Tauberian theorems"*
- Hüseyin Aktuğlu and Halil Gezer  
*"Strong A-summability of order alpha"*

**15:00-16:00 Session 5-B (4 talks) [Room: Continuity]**

**Chair: Tamaz S. Vashakmadze**

- H. Vaezi and H. Shakoory  
*"On The Hyers-Ulam stability of non-constant valued linear differential equation  $xy' = -\lambda y$ "*
- Paria Sattari Shajari  
*"Nine point multistep methods for linear transport equation"*

- Yesmakhanova K. R.  
*"Connection between solutions nonlinear Schrodinger equation and spin system"*
- Abderrahmane Zarai and Nasser-eddine Tatar  
*"Non-solvability of Balakrishnan-Taylor equation with memory term in  $R^N$ "*

**15:00-15:45 Session 5-C (3 talks) [Room: Derivative]**

**Chair: Nusrat Rajabov**

- Nazek Al-Essa and Mohamed Nour  
*"Performance Evaluation of Object Clustering using Traditional and Fuzzy Logic Algorithms"*
- Damla Arslan, Mevlude Yakıt Ongun and İlkem Turhan  
*"Nonstandard Finite Difference Schemes for Fuzzy Differential Equations"*
- Faycel Merghadi  
*"A Related Fixed Point Theorem in n-Intuitionistic Fuzzy Metric Spaces"*

**16:00-16:30 Coffee-Tea-Cookies Break [Place: Conference Hall]**

**16:30-17:15 Session 6-A (3 talks) [Room: Limit]**

**Chair: Weimin Han**

- K. Sayehmiri and I. Almasi  
*"Estimation of hazard function in continues semi-Markova multi-state models"*
- Heinz-Joachim Rack  
*"An Example of Optimal Nodes for Interpolation Revisitedam"*
- Ali Allahverdi and Harun Aydilek  
*"Three Algorithms for the Assembly Flowshop Scheduling Problem"*

**16:30-17:15 Session 6-B (3 talks) [Room: Continuity]**

**Chair: Fatma Ayaz**

- El Amir Djeflal; Lakhdar Djeflal and Djamel Benterki  
*"Extension of Karmarkar's algorithm for solving an optimization problem"*
- A. Guezane-Lakoud and L. Zenkoufi  
*"Study of third-order three-point boundary value problem with dependence on the first order derivative"*
- Tamaz S. Vashakmadze and Yusuf F. Gülver  
*"Approximate Solution of some BVP of 2Dim Refined Theories"*

**16:30-17:15 Session 6-C (3 talks) [Room: Derivative]**

**Chair: Burak Aksoylu**

- Muhammed I. Syam and M. Naim Anwar

*“A computational method for solving a class of non-linear fourth order singularly perturbed boundary value problem”*

- Malika Zidani Boumedien

*“On Parameterization and Smoothing of B-splines interpolating curves”*

- G.Y. Mehdiyeva, Ibrahimov V.R. and Imanova M.N.

*“Application of the hybrid method for the numerical solution of Volterra integral equations”*

**17:15-17:30** **Coffee-Tea Break [Place: Conference Hall]**

**17:30-18:15** **Invited Lecture [Room: Continuity]**

**Chair: Jerry L. Bona**

**Speaker: Weimin Han**

*“On a family of models in X-ray dark-field tomography”*

**18:15** **END OF THE LECTURES of 2<sup>ND</sup> DAY**

**19:30-22:30** **CONFERENCE DINNER**

**MAY 19, 2012 (SATURDAY):**

**[Important Note: On May 19, all presentations will be given in the main university building instead of TOBB ETU Social Facilities]**

**10:00-10:15** **Registration [Place: Lecture Rooms Area]**

**10:15-11:00** **Invited Lecture [Lecture Room 1]**

**Chair: Weimin Han**

**Speaker: Margareta Heilmann**

*“New Results for Genuine Szasz-Mirakjan-Durrmeyer Operators”*

**11:00-11:30** **Coffee-Tea-Cookies Break [Place: Lecture Rooms Area]**

**11:30-12:30** **Session 7-A (4 talks) [Lecture Room 1]**

**Chair: Tomasz Rychlik**

- Ali Morassaei and Farzollah Mirzapour

*“Alzer Inequality for Hilbert Spaces Operators”*

- Demet Binbaşıoğlu and Duran Türkoğlu

*“Fixed Point Theorems for generalized contractions in ordered uniform space”*

- Erdal Karapınar

*“On Partial Metric Spaces and Some Related Fixed Point Theorems”*

- K.P.R Rao, Kenan Tas and S. Hima Bindu

*“Existence and uniqueness of the common tripled fixed point in generalized metric spaces”*

**11:30-12:30 Session 7-B (4 talks) [Lecture Room 2]**

**Chair: Canan Çelik Karaaslanlı**

- Aytekin M. O. Anwar, Dumitru Baleanu, Fahd Jarad and Fatma Ayaz  
*"Fractional Calculus Models in DNA"*
- Shazad Shawki Ahmed and Shokhan Ahmed  
*"The Approximate Solution of multi-higher Order Linear Volterra Integro-Fractional Differential Equations with Variable Coefficients in Terms of Orthogonal Polynomials"*
- Mehmet Giyas Sakar and Hilmi Ergören  
*"Alternative variational iteration method to solve the time-fractional Fornberg-Whitham equation"*
- A. Guezane-Lakoud and S. Bensebaa  
*"Existence results for a fractional boundary value problem"*

**11:30-12:30 Session 7-C (4 talks) [Lecture Room 3]**

**Chair: Dumitru Baleanu**

- J. Sulaiman, M.K. Hasan, M. Othman and S.A. Abdul Karim  
*"Numerical Solutions of Nonlinear Second-Order Two-Point Boundary Value Problems Using Half-Sweep SOR With Newton Method"*
- Burak Aksoylu and Zuhul Unlu  
*"Robust preconditioners for the high-contrast Stokes problem"*
- T. M. El-Gindy; M.S. Salim and Abdel-Rahman Ibrahim  
*"A Modified Partial Quadratic Interpolation Method for Unconstrained Optimization"*
- Uday Singh and Smita Sonker  
*"Trigonometric Approximation of Signals (Functions) Belonging to Weighted  $(L_p-\epsilon(t))$ -Class by Hausdorff Means"*

**12:30-14:00 Lunch Break [Place: Sultan Cafe]**

**14:00-14:45 Invited Lecture [Lecture Room 1]**

**Chair: Margareta Heilmann**

**Speaker: Dumitru Baleanu**

*"Open problems in the area of fractional calculus and its applications"*

**14:45-15:00 Coffee-Tea Break [Lecture Rooms Area]**

**15:00-16:00 Session 8-A (4 talks) [Lecture Room 1]**

**Chair: Kenan Taş**

- Praveen Agarwal  
*"Fractional integration of the product of two H-functions and a general class of polynomials"*



- Bayram Çekim and Esra Erkuş-Duman  
*“On the  $g$ -Jacobi Matrix Functions”*
- Boussayoud Ali and Kerada Mohamed  
*“A generalization of some orthogonal polynomials”*
- Bani Mukherjee and Krishna Prasad  
*“A Deterministic Inventory Model of Deteriorating Items with Stock and Time Dependent Demand Rate”*

**15:00-16:00 Session 8-B (4 talks) [Lecture Room 2]**

**Chair: George A. Anastassiou**

- Svajunas Sajavicius  
*“Parallel Solution Schemes for Quasi-Tridiagonal Linear Systems Arising After Discrete Approximations of ODEs/PDEs with Nonlocal Conditions”*
- Nusrat Rajabov  
*“About New Class of Volterra Type Integral Equations with Boundary Singularity in Kernels”*
- Ahmet Altundag  
*“A Hybrid Method for Inverse Scattering Problem for a Dielectric”*
- Elvan Akin-Bohner and Raziye Mert  
*“Oscillatory Behaviour of Solutions of Fourth Order Delay and Advanced Dynamic Equations”*

**15:00-16:00 Session 8-C (4 talks) [Lecture Room 3]**

**Chair: Alexander Buslaev**

- Kil H. Kwon and J. Lee  
*“Generalized sampling with multi filterings”*
- Tahir Khaniyev, Basak Gever and Zulfiyya Mammadova  
*“Approximation Formulas for the Moments of Gaussian Random Walk with a Reflecting Barrier”*
- Ceren Vardar Acar and Mine Caglar  
*“On Supremum, Infimum, Maximum Gain and Maximum Loss of Brownian Motion with drift and of Fractional Brownian Motion”*
- Feridun Tasdan  
*“Pairwise Likelihood Procedure To Estimate A Shift Parameter”*

**16:00-16:30 Coffee-Tea-Cookies Break [Lecture Rooms Area]**

**16:30-17:15 Session 9-A (3 talks) [Lecture Room 1]**

**Chair: Oktay Duman**

- İsmet Yüksel  
*“Direct results on the  $q$ -mixed summation integral type operators”*

- Sofiya Ostrovska  
*"The norm estimates of the  $q$ -Bernstein operators in the case  $q>1$ "*
- Mehmet Gürcan and Muhammet Burak Kilic  
*"Exchangable Parameters Binomial Approximation"*

**16:30-17:15 Session 9-B (3 talks) [Lecture Room 2]**

**Chair: Esra Erkuş-Duman**

- Muzaffer Ateş  
*"On the boundedness and the stability properties of solution of certain third order differential equations"*
- Canan Çelik Karaaslanlı  
*"Dynamical behavior of a ratio dependent predator-prey system with distributed delay"*
- Lakhdari Abdelghani  
*"An iterative regularization method for a class of inverse problems for elliptic equations with Dirichlet conditions"*

**16:30-17:15 Session 9-C (3 talks) [Lecture Room 3]**

**Chair: Ömer Akın**

- Adil Kadir Jabbar and Chwas Abas Ahmed  
*"On Generalized  $k$ -Primary Rings"*
- Boushabi Badr and Boussairi Abderrahim  
*"Monomorphic structures and homogeneous groups"*
- S. Sinrapavongsa and A. Harnchoowong  
*"On The Number of Representations of An Integer of The Form  $x^2 + dy^2$  in A Number Field"*

**17:15-17:30 Coffee-Tea Break [Lecture Rooms Area]**

**17:30-18:15 Invited Lecture [Lecture Room 1]**

**Chair: Dumitru Baleanu**

**Speaker: George A. Anastassiou**

*"Fractional Inequalities Involving Convexity"*

**18:30 END OF THE LECTURES of 3<sup>RD</sup> DAY**

**MAY 20, 2012 (SUNDAY):**

**10:00-18:30** Excursion (Beypazarı)

**19:00 END OF THE CONFERENCE**