

8:30-9:00	Registration	Conference Hall				
9:00-9:45	Plenary Lecture 4	Conference Hall				
		CENGIZ OZKAN (USA) <i>Graphene: a new material that can transform the electronics and nanotechnology landscape</i> CHAIR: Ziya B. Güvenc				
9:45-10:30	Plenary Lecture 5	Conference Hall				
		MIHRI OZKAN (USA) <i>Bulk Heterojunction Solar Cells: Engineering at the nanoscale</i> CHAIR: I. Boustani				
10:30-10:45	Coffee Break					
10:45-11:30	Plenary Lecture 6	Conference Hall				
		THOMAS SOLOMON The effects of fluid mixing on reaction dynamics CHAIR: A. Luo				
11:30-11:40	Coffee Break					
11:40-13:30	Parallel Session 13	Parallel Session 14	Parallel Session 15	Parallel Session 16	Parallel Session 17	Parallel Session 18
	Conference Hall	Blue Hall	AMFI 1	AMFI 2	AMFI 3	AMFI 4
13:30-14:45	Lunch					
14:45-16:30	Parallel Session 19	Parallel Session 20	Parallel Session 21	Parallel Session 22	Parallel Session 23	Parallel Session 24
	Conference Hall	Blue Hall	AMFI 1	AMFI 2	AMFI 3	AMFI 4
16:30-17:00	Coffee Break					
17:00-18:45	Parallel Session 25	Parallel Session 26	Parallel Section 27	Parallel Session 28	Parallel Session 29	
	Blue Hall	AMFI 1	AMFI 2	AMFI 3	AMFI 4	
19:00-19:45	Cultural Event	Conference Hall				
20.00-21.45	Banquet					

Thu, July 29, 2010		Parallel Section 13	PLACE- Conference Hall		
11:40-13:30	Fractional Calculus Applications	Chair	Igor Sokolov	Co-chair	Aleksei Chechkin
11.40-12.10	Om P.Agrawal, Sami Muslih, D. Baleanu	<i>Generalized variational calculus in terms of multiparameter fractional derivatives</i>			
12.10-12.40	Renat Sibatov, Vladimir V. Uchaikin	<i>Truncated Levy statistics for transport in disordered semiconductors</i>			
12.40-13.00	Aleksei Chechkin , I. Sokolov, J. Klafter	<i>Natural and Modified Forms of Distributed Order Fractional Diffusion Equations</i>			
13.00-13.30	Igor Sokolov, D. Froemberg	<i>Front Propagation in an A+B \rightarrow 2 A Reaction under Subdiffusion</i>			

Thu, July 29, 2010		Parallel Section 14	PLACE- AMFI 1		
11:40-13:30	Celestial Mechanics and Dynamical Astronomy	Chair	Seppo Mikkola	Co-chair	Yuan Ren
11.40-12.10	Tere Seara	<i>The scattering map associated to the normally parabolic manifold</i>			
12.10-12.35	Seppo Mikkola	<i>Problems that can be Regularised by the Logarithmic Hamiltonian Leapfrog</i>			
13.05-13.30	Andrzej Maciejewski	<i>The Node Elimination in the Kinoshita Problem</i>			
12.35-13.05	Yuan Ren, Josep J. Masdemont , Gerard Gomez ,Elena Fantino	<i>On the mechanisms of natural transport in the solar system</i>			

Thu, July 29, 2010		Parallel Section 15	PLACE-Blue Hall		
11:40-13:30	Chaotic Dynamics and Transport in Classical and Quantum Systems	Chair	Thomas Solomon	Co-chair	Kevin Mitchell
11.40-12.20	Thomas Solomon, Garrett M. O'Malley, Matthew S. Paoletti, Mollie E. Schwartz	<i>Pinning and mode-locking of reaction fronts by vortices</i>			
12.20-13.00	Kevin Mitchell	<i>The use of periodic orbits to compute decay rates in mixed phase spaces</i>			
13.00-13.30	Nicholas Ouellette, Nidhi Khurana, Jerzy Blawdziewicz	<i>Transport of swimming particles in chaotic flow</i>			

Thu, July 29, 2010		Parallel Section 16	PLACE- AMFI 2		
11:40-13:30	Mathematical Methods from Probability, Optimization and Data Mining in Finance, Life and Systems	Chair	Jeffrey Webb	Co-chair	Jerzy A. Filar
11.40-12.10	Gerhard Wilhelm Weber	<i>New Mathematical Tools For The Financial Sector</i>			
12.10-12.30	Özlem Defterli , Armin Fügenschuh, Gerhard Wilhelm Weber	<i>Modern Tools For The Discretization And Optimization Of Dynamical Models For Gene-Environment Networks</i>			
12.30-12.50	Ayse Özmen, Gerhard Wilhelm Weber , İnci Batmaz, Erik Kropat	<i>RCMARS: Robustification of CMARS with different scenarios under Polyhedral Uncertainty Set</i>			
12.50-13.10	Eren Özceylan Turan Paksoy, Nimet Yapıcı Pehlivan	<i>A Fuzzy Multi-Objective Mixed Integer Programming Model for Multi Echelon Supply Chain Network Design and Optimization</i>			
13.10-13.30	Fidan Fahmi, Elçin Kartal, Cem İyigün, Murat Türkeş, Ceylan Yozgatlıgil, Vilda Purutcuoğlu, İnci Batmaz, Gülser Köksal	<i>Determining the Climate Zones of Turkey by Center-Based Clustering Methods</i>			

Thu, July 29, 2010		Parallel Section 17		PLACE- AMFI 3	
11:40-13:30	Industrial Organization and Game Theory	Chair	Flavio Ferreira	Co-chair	Akio Matsumoto
11:40-12:10	Akio Matsumoto, Ferenc Szidarovszky, Hiroyuki Yoshida	<i>Dynamics in Delay Cournot Duopolies</i>			
12:10-12:40	Fernanda A. Ferreira	<i>Uncertainty In A Mixed Duopoly With Quadratic Costs</i>			
12:40-13:00	Fernanda A. Ferreira	<i>Licensing In A Foreign Competition With Differentiated Goods</i>			
13:00-13:30	Flavio Ferreira, Fernanda A. Ferreira	<i>Desirable Role In An International Market With Uncertainty</i>			

Thu, July 29, 2010		Parallel Section 18		PLACE- AMFI 4	
11:40-13:30	Nonlinear Science and Complexity 1	Chair	Yeliz Yolcu Okur	Co-chair	Xilin Fu
11:40-12:10	Yeliz Yolcu Okur, Dumitru Baleanu , Salih Okur,Kasim Ocakoglu	<i>Parameters Identification of the Langmuir Model for Adsorption and Desorption Kinetic Data</i>			
12:10-12:40	Usuf Jafarzadeh	<i>Numerical Tests In Histopolation By Rational Spline</i>			
12:40-13:10	Xilin Fu	<i>Uniform asymptotic stability and global exponential stability of impulsive delayed Hopfield neural networks</i>			
13:10-13.30	A.Farajzadeh, A.Hoseinpour	<i>On the Quasi-eigenvector problems</i>			

Thu, July 29, 2010		Parallel Section 19		PLACE- Conference Hall	
14:45-16:30	Fractional Calculus Applications	Chair	Manuel Ortigueira	Co-chair	Mark Edelman
14:45-15:15	Manuel Ortigueira, Richard Magin	<i>The power functions and their Fourier transforms</i>			
15:15-15:45	Sergiu Vacaru, Dumitru Baleanu	<i>Fractional Analogous Models in Mechanics and Gravity Theories</i>			
15:45-16:05	Manuel Ortigueira, Luis Rodríguez-Germá, Juan J. Trujillo	<i>Generalized GL, Caputo, and Riemann-Liouville derivatives for analytic functions</i>			
16:05-16:35	Mark Edelman	<i>Fractional Standard Map: Riemann-Liouville vs. Caputo</i>			

Thu, July 29, 2010		Parallel Section 20		PLACE- Blue Hall	
14:45-16:30	Celestial Mechanics and Dynamical Astronomy: Methods and Applications				
		Chair	Marian Gidea	Co-chair	Kristian Uldall Kristiansen
14:45-15:20	Roberto Castelli	<i>Prevalence Of Each Cr3bp In The Approximation Of The Biiircular Problem</i>			
15:20-16:00	Marian Gidea, Edward Belbruno, Francesco Topputo	<i>Weak Stability Boundary and Invariant Manifolds</i>			
16:00-16:30	Elisa Maria Alessi , Gerard Gomez , Josep J. Masdemont	<i>Low-energy impact dynamics in the Earth -- Moon system</i>			

Thu, July 29, 2010		Parallel Section 21		PLACE- AMFI 1	
14:45-16:30	Nonlinear Dynamics of Continuous and Discontinuous Dynamical Systems				
	Chair	Weigang Sun	Co-chair	Mesut Simsek	
14:45-15:05	Mesut Simsek, Ş. D. Akbaş, T. Kocatürk		<i>Non-linear Vibration of an FGM Beam Subjected to a Moving Load by Using a New Higher Order Shear Deformation Theory</i>		
15:05-15:25	Moufid Mansour		<i>Automatic detection of steady-state in on-line optimization</i>		
15:25-15:45	Nadeem Bashir, R. P. Rastogi, G. M. Peerzada		<i>Catalyst, Co-ion and the Media Effect on the oscillatory behavior of Resorcinol in the BZ reaction</i>		
15:45-16:05	Seref D. Akbas, T. Kocatürk, M. Şimşek		<i>Geometrically Non-Linear Static Analysis of a Simply Supported Beam Under Uniform Thermal Loading</i>		
16:05-16:30	Yongqing Wu, Changpin Li, Weigang Sun, Yujiang Wu		<i>Synchronization Analysis for Two Coupled Populations of Phase Oscillators</i>		

Thu, July 29, 2010		Parallel Section 22		PLACE- AMFI 2	
14:45-16:30	Chaotic Dynamics and Transport in Classical and QS		Chair	Emilio Hernandez-Garcia	Co-chair Ulrike Feudel
14:45-15:20	Emilio Hernandez-Garcia, Cristóbal López, Ismael Hernández-Carrasco, Emilie Tew Kai, Vincent Rossi, Joël Sudre, Véronique Garçon		<i>Biological impact of ocean transport: A finite-size Lyapunov characterization</i>		
15:20-15:55	Ulrike Feudel, David Bastine, Mathias Sandulescu, Emilio Hernandez-Garcia, Cristobal Lopez		<i>How does nutrient transport influence the emergence of plankton patterns in the wake of an island?</i>		
15:55-16:30	M. Winkler, S. Stockle, G. Kofod, R. Krastev, M. Abel		<i>Turbulent mixing in soap films</i>		

Thu, July 29, 2010		Parallel Section 23		PLACE- AMFI 3	
14:45-16:30	Applied Symmetries and Perturbation Methods in Nonlinear Sciences		Chair	Maria Luz Gandarias	Co-chair Faouzi Lakrad
14:45-15:15	Faouzi Lakrad, M. Belhaq		<i>Effects of a High-Frequency Voltage On Capacitive MEMS Like Equations</i>		
15:15-15:45	Maria S. Bruzon, M.L. Gandarias		<i>Similarity and traveling wave solutions of a $K(m,n)$ equation</i>		
15:45-16:10	Maria Luz Gandarias, M.S. Bruzon		<i>Conservation laws for a subclass of self-adjoint third order Equations</i>		

Thu, July 29, 2010		Parallel Section 24		PLACE- AMFI 4	
14:45-16:30	Complex Nonlinear Wave Dynamics and Patterns in Geophysical Flows		Chair	Leo Maas	Co-chair Alexander Slepyshev
14:45-15:20	Leo Maas		<i>The Rossby-inertial wave paradox</i>		
15:20-15:55	Alexander Slepyshev		<i>Nonlinear effects at propagation of trapped</i>		
15:55-16:30	Alexey Slyunyaev		<i>Evidence of the Wave Phase Coherence for Freak Wave Events</i>		

Thu, July 29, 2010		Parallel Section 25		PLACE- Conference Hall	
17:00-18:45	Fractional Calculus Applications		Chair	Om P. Agrawal	Co-chair Xiangqing (Annie) Tangpong
17:00-17:20	Md. Mehedi Hasan, X.W. Tangpong, O.P. Agrawal		<i>Fractional Optimal Control of a Hollow Cylindrical Structure</i>		
17:20-17:40	Badreddine Boudjehem, Djalil Boudjehem, H. Tebbikh		<i>Optimal Tuning Method for Fractional PI Controller Based on Diffusive Representation</i>		
17:40-18:00	Boudjehem Djalil, Badreddine Boudjehem		<i>The use of fractional order models in predictive control</i>		
18:00-18:20	Ricardo Almeida, Agnieszka B. Malinowska, Delfim Torres		<i>Euler-Lagrange equations for the Caputo fractional derivative</i>		
18:20-18:45	Bartłomiej Dybiec, Igor M. Sokolov, Aleksei V. Chechkin		<i>Stationary states for anomalous diffusion</i>		

Thu, July 29, 2010		Parallel Section 26		PLACE- AMFI 1	
17:00-18: 45	New Noninvasive Methods For "Reading" Of Any Randomness: Applications For Different Complex Systems				
	Chair	Nigmatullin Raoul	Co-chair	M. Serdar Çavuş	
17.00-17.40	Nigmatullin Raoul , Alexander P. Alekhin		<i>Calculation of a static potential created by plane fractal cluster</i>		
17.40-18.05	Mihaela-Cristina Baleanu, Raoul R.Nigmatullin,Salih Okur, Kasim Ocakoglu		<i>New approach for consideration of adsorption/desorption data</i>		
18.05-18.30	M. Serdar Çavuş , S. Bozdemir		<i>Fractional Relaxation of Dielectric Materials: Adomian Decomposition Method</i>		

Thu, July 29, 2010		Parallel Section 27		PLACE- AMFI 2	
	Exactly Solvable Nonlinear Systems: Theory and Applications		Chair	Oktay Pashaev	Co-chair Jyh - Hao LEE
17.00-17.25	Ali Farajzadeh		<i>On vector equilibrium Problems</i>		
17.25-17.50	Aydin Huseynov, Gusein Guseinov		<i>Integration of the finite Toda lattice with complex-valued initial data</i>		
17. 50-18.20	Oktay Pashaev		<i>Resonant Solitons and Integrable Non-Madelung Fluid</i>		
18.20-18.50	Jyh - Hao Lee, Oktay K. Pashaev		<i>Chiral Resonant Solitons in Broer-Kaup Type New Hydrodynamic Systems</i>		

Thu, July 29, 2010		Parallel Section 28		PLACE- AMFI 3	
17:00-18: 45	Applied Symmetries and Perturbation Methods in Nonlinear Sciences				
	Chair	Mehmet Pakdemirli	Co-chair	Ünal Göktaş	
17.00-17.35	Ünal Göktaş , Willy Hereman		<i>Symbolic Computation of Conservation Laws, Generalized Symmetries, and Recursion Operators for Nonlinear Differential-Difference Equations</i>		
17.35-18.10	Yiğit Aksoy,Mehmet Pakdemirli , Hakan Boyacı		<i>New Perturbation-Iteration Solutions For Bratu-Type Equations</i>		
18.10-18.40	Duygu Dönmez Demir, Ali Konuralp, Necdet Bildik, Ali Demir		<i>Motion Analysis of Rainy Cells Observed In Weather Radar Images</i>		

Thu, July 29, 2010		Parallel Section 29		PLACE- AMFI 4	
17:00-18: 45	Complex Nonlinear Wave Dynamics and Patterns in Geophysical Flows				
	Chair	Lev Ostrovsky	Co-chair	Victor Shrira	
17.00-17.35	Lev Ostrovsky		<i>Strongly nonlinear internal waves in the ocean</i>		
17.35-18.10	Victor Shrira , S.Y.Annenkov		<i>Towards New Picture Of Wave Turbulence</i>		
18. 10-18.45	Roberto Camassa		<i>Strongly nonlinear models for internal wave propagation in miscible fluids</i>		