

## Scientific Programme

<b>6 September 2010, Monday</b>	
<b>09:00 – 09:30</b>	<b>REGISTRATION</b>
<i>Morning session</i>	<i>Chair: Erzan</i>
09:30 – 09:40	Welcome by <b>Organizers</b>
09:40 – 10:20	<b>Giulio Casati</b> <i>Title: Quantum Thermometers: Thermalization and ergodicity in many-body quantum systems</i>
10:20 – 10:50	<b>G. Dereli</b> <i>Title : Strain Tunable Band Gaps of Carbon Nanotubes</i>
10:50 – 11:20	B r e a k
11:20 – 11:50	<b>Demetris P.K. Ghikas</b> <i>Title : Quantum Information Devices and the problem of Decoherence. Some results from toy models</i>
11:50 – 12:10	<b>Sobhan Sepehri</b> <i>Title : dHAN Model of a Neural Network in the Light of Experimental Neuroscience</i>
12:10 – 14:30	L u n c h
<i>Afternoon session</i>	<i>Chair: Sourlas</i>
14:30 – 15:10	<b>Henrik Jeldtoft Jensen</b> <i>Title: Dynamics of Complex Systems with an emphasis on Criticality and Record Dynamics</i>
15:10 – 15:40	<b>Ayse Erzan</b> <i>Title : Spectral Renormalization Group Theory on Networks</i>
15:40 – 16:00	<b>Leila Separdar</b> <i>Title : On the `glassy' transition and fragility of the ferromagnetic plaquette Ising model</i>
16:00 – 16:30	B r e a k
16:30 – 17:00	<b>Hande Ustunel Toffoli</b> <i>Title : Density functional theory and its applications to contemporary problems in physics</i>
17:00 – 17:30	<b>Haluk Bingol</b> <i>Title: Finding a partner: Effect of gift</i>
20:30 – ...	Conference Dinner

<b>7 September 2010, Tuesday</b>	
<i>Morning session</i>	<i>Chair: Yalabik</i>
09:00 – 09:40	<b>Constantino Tsallis</b> <i>Title: Nonadditive entropy and nonextensive statistical mechanics - Recent predictions, verifications and applications</i>
09:40 – 10:20	<b>Stefan Thurner</b> <i>Title : Thermodynamic derivation of entropy of complex systems</i>
10:20 – 10:50	B r e a k
10:50 – 11:30	<b>Tassos Bountis</b> <i>Title : Quasi–Stationary Chaotic States in Multidimensional Hamiltonian Systems</i>
11:30 – 11:50	<b>Guiomar L. Ruiz</b> <i>Title: Time-evolving Statistics of Chaotic Orbits of Conservative Maps in the Context of Central Limit Theorem</i>
11:50 – 12:10	<b>Antonio Rodriguez</b> <i>Title: Scale invariant probabilistic model having two dimensional q–Gaussians as <math>N \rightarrow \infty</math> limiting distribution</i>
12:10 – 14:30	L u n c h
<i>Afternoon session</i>	<i>Chair: Bountis</i>
14:30 – 15:10	<b>Christian Beck</b> <i>Title: Superstatistical techniques for complex systems with time scale separation</i>
15:10 – 15:30	<b>Fernando D. Nobre</b> <i>Title: Analysis of Metastable States in the Infinite-Range-Interaction Inertial Heisenberg Ferromagnet</i>
15:30 – 15:50	<b>Roseli Wedemann</b> <i>Title : Memory Associativity in a Model for Conscious and Unconscious Mental Processes</i>
15:50 – 16:20	B r e a k
16:20 – 16:50	<b>G. Baris Bagci</b> <i>Title: Self-organization in dissipative optical lattices</i>
16:50 – 17:20	<b>Menderes Iskin</b> <i>Title : Phase diagram of the hardcore Bose-Hubbard model on a checkerboard superlattice</i>
17:20 – 17:50	<b>Kaan Guven</b> <i>Title: Transformation Optics: Bending the light</i>

<b>8 September 2010, Wednesday</b>	
<i>Morning session</i>	<i>Chair: Kabakcioglu</i>
09:00 – 09:40	<b>Thanos Panagiotopoulos</b> <i>Title: Systematic Identification of Order Parameters in Biophysical Systems</i>
09:40 – 10:10	<b>Aglaia Athanassiadou</b> <i>Title: The functional instability of native DNA</i>
10:10 – 10:40	<b>George Kalosakas</b> <i>Title :Breather induced anomalous charge diffusion in a DNA model</i>
10:40 – 11:10	B r e a k
11:10 – 11:40	<b>Kalliopi Trohidou</b> <i>Title : A Monte Carlo Study of the dynamical behavior of cluster assembled magnetic nanostructures</i>
11:40 – 12:10	<b>K. Papagelis</b> <i>Title : Probing the optical phonons of graphene by mechanical loading</i>
12:10 – 14:30	L u n c h
<i>Afternoon session</i>	<i>Chair: Lazarides</i>
14:30 – 15:00	<b>Cemal Yalabik</b> <i>Title: Renormalization Group studies of some Non-equilibrium Systems</i>
15:00 – 15:30	<b>Ahmet Oral</b> <i>Title: Atomic Resolution nc-AFM imaging in a closed liquid cell: New potentials in Chemistry &amp; Molecular Biology</i>
15:30 – 15:50	<b>Nejat Bulut</b> <i>Title: Dilute magnetic semiconductors: combined density functional theory and quantum Monte Carlo approach</i>
15:50 – 16:20	B r e a k
16:20 – 16:50	<b>A. Kabakcioglu</b> <i>Title: Anharmonicity, mode-coupling and entropy in a fluctuating native protein</i>
16:50 – 17:10	<b>Ramin Omidvar</b> <i>Title : Steered Molecular Dynamics simulation to study elasticity and rupture of a Contactin protein</i>
17:10 – 18:30	POSTER SESSION

**9 September 2010, Thursday**

07:30	TRANSPORTATION TO GR by <b>ferryboat</b>
<i>Afternoon session</i>	<i>Chair: Casati</i>
14:30 – 15:10	<b>Nicolas Surlas</b> <i>Title:</i> Phase transitions in the presence of quenched disorder
15:10 – 15:40	<b>Levent Kurnaz</b> <i>Title:</i> Effects of Climate Change on Eastern Mediterranean Region with a special focus on Greece and Turkey
15:40 – 16:10	B r e a k
16:10 – 16:40	<b>Dimitris Kugiumtzis</b> <i>Title:</i> Detecting causality in multivariate time series
16:40 – 17:00	<b>Nikos Kouvaris</b> <i>Title:</i> Coherent oscillations in ensembles of discrete two-state excitable units with global delay coupling
17:00 – 17:30	<b>Sondan Durukanoglu Feyiz</b> <i>Title:</i> Vibrational Behavior of Metal Nanowires under Tensile Stress
17:30 – 17:50	<b>Panayotis Katsaloulis</b> <i>Title:</i> Fractal Analysis of Human Brain Diffusion Tensor Images in the 2-D and 3-D Space
17:50 – 18:30	POSTER SESSION

## 10 September 2010, Friday

9:00	<i>Excursion to Symi island</i>
	<i>Chair: Misako Takayasu</i>
10:30 – 11:10	<b>Juergen Kurths</b> <i>Title: Is there a Climate Network – A Backbone of the Climate System?</i>
11:10 – 11:50	<b>Hideki Takayasu</b> <i>Title : Similarity between brittle fracture and financial crisis: How can we introduce plasticity in financial world ?</i>
11:50 – 12:20	<b>Minos Axenidis</b> <i>Title: Non-Hamiltonian Chaos from Nambu Dynamics on Surfaces</i>
12:20 – 12:40	B r e a k
12:40 – 13:10	<b>Yasar Yilmaz</b> <i>Title : Observation of network formation, fractal nature, universality, internal morphology of the polymer networks: theory and experiment</i>
13:10 – 13:30	<b>Esra Alveroglu</b> <i>Title : Polymer network pn junctions with ionic charge carriers</i>

## 11 September 2010, Saturday

<i>Morning session</i>	<i>Chair: Yilmaz</i>
09:00 – 09:40	<b>Misako Takayasu</b> <i>Title : The structure and statistical properties of Japanese business firm network</i>
09:40 – 10:10	<b>Nikos Theodorakopoulos</b> <i>Title: Melting of genomic DNA sequences: predictive modeling by nonlinear lattice dynamics</i>
10:10 – 10:40	<b>Xenophon Zotos</b> <i>Title: On the nonlinear response of a particle interacting with fermions in a 1D lattice</i>
10:40 – 11:00	B r e a k
11:00 – 11:30	<b>George Kopidakis</b> <i>Title : Wave Propagation in Nonlinear Disordered Chains</i>
11:30 – 12:00	<b>Nikos Lazarides</b> <i>Title : Spontaneous breather generation in model binary metamaterials</i>
12:00 – 12:30	<b>Vassilis Rothos</b> <i>Title: Travelling wavers in nonlocal lattice equations</i>
12:30 – 12:40	C l o s i n g
	D E P A R T U R E