

Fourth International Workshop on Statistical Mechanics and Dynamical Systems

coorganised by Greece and Turkey

Athens - Greece

July 17-19 2014

Thursday, July 17, 2014

<i>Morning session</i> (9:00-13:00)	Chair: G. Tsironis
8:30-9:00	Registration
9:00-9:10	Welcome
9:10-9:50	Yannis Kevrekidis (Princeton University, USA) <i>Title: Data Driven Bifurcation Studies: Studying Granular Chains with the Equation Free Framework</i>
9:50-10:30	Turgut Bastug (TOBB ETU University, Ankara, Turkey) <i>Title: Free Energy Calculations for Investigation of Structure Function Relations of Ion Channels and Transporters</i>
10:30-11:00	Coffee Break
11:00-11:40	Constantino Tsallis (Centro Brasileiro de Pesquisas Físicas, Brasil) <i>Title: Boltzmann-Gibbs entropy is sufficient but not necessary for the 1910 Einstein principle for likelihood factorization</i>
11:40-12:20	Ugur Tirnakli (Ege University, Izmir, Turkey) <i>Title: Ergodic and nonergodic case studies in the logistic map</i>
12:20-12:40	Ernesto P. Borges (Universidade Federal da Bahia, Brasil) <i>Title: Generalized phase-space in quantum mechanics for a position-dependent mass system</i>
12:40-13:00	Luciano R. da Silva (Universidade Federal do Rio Grande do Norte, Brasil) <i>Title: Extended Affinity Model in Complex Networks</i>
13:00-14:30	Lunch Break

<i>Afternoon session</i>	Chair: U. Tirnakli
14:30-15:10	Afif Siddiki (Istanbul University, Turkey) <i>Title: Compressibility in 2D with magnetic fields: How does statistics work?</i>
15:10-15:50	Nicolas Sourlas (Ecole Normal Superieur, France) <i>Title: TBA</i>
15:50-16:10	Deniz Eroglu (Humboldt University, Germany) <i>Title: Connectivity-Driven Collective Motion of Nonidentical Oscillators in Complex Networks</i>
16:10-16:30	Dimitris Kugiumtzis (University of Thessaloniki, Greece) <i>Title: Complex networks and structural changes from multivariate time series</i>
16:30-17:00	Coffee Break
17:00-17:20	Nikos Kouvaris (University of Barcelona, Spain) <i>Title: Turing patterns on multiplex networks</i>
17:20-17:40	Joanne Hizanidis (National Center for Scientific Research “Demokritos”, Greece) <i>Title: Chimera states in networks of nonlocally coupled neural oscillators</i>
17:40-18:00	Nikos Lazarides (University of Crete, Greece) <i>Title: Chimera-like States in SQUID Metamaterials</i>
18:00-19:00	Giulio Casati (Univ. of Insubria at Como, Italy) <i>Title: Conservation Laws, Symmetry Breaking and Thermodynamic Efficiencies</i>
Special lecture	

Friday, July 18, 2014	
<i>Morning session</i> (9:00-13:00)	Chair: A. Provata
9:00-9:20	Panos Argyrakis (University of Thessaloniki, Greece) <i>Title: Structural Analysis of the European Commission FP7 Collaboration Network</i>
9:20-9:40	Thomas Stemler (The University of Western Australia, Crawley, Australia) <i>Title: How scale-free is my network</i>
9:40-10:00	Stavroula Sofou (Rutgers University, USA) <i>Title: Floret-shaped solid domains on giant fluid lipid vesicles induced by pH</i>
10:00-10:20	Vassilis Bassios (Univestite Libre de Bruxelles, Belgium) <i>Title: Dynamics of Hierarchical Systems & Non-standard aggregation</i>

10:20-11:00	Coffee Break
11:00-11:20	Haris Skokos (University of Cape Town, South Africa) <i>Title: High order three part split symplectic integrators: Application to the disordered discrete nonlinear Schrödinger equation</i>
11:20-11:40	Heleni Christodoulidi (University of Patras, Italy) <i>Title: On the role of the KdV equation in the FPU problem</i>
11:40-12:00	Vassilis Rothos (Univ. of Thessaloniki, Greece) <i>Title: Localized structures in Nonlocal Media</i>
12:00-12:20	Antonio Rodriguez Mesas (Universidad Politecnica de Madrid, Spain) <i>Title: Connection between Dirichlet distributions and a scale-invariant probabilistic model based on Leibniz-like pyramids</i>
12:20-12:40	Lena Takayasu (University of Tokyo, Japan) <i>Title: Microbial spatial competition shaping Intestinal Flora</i>
12:40-13:00	Thanos Manos (University of Maribor, Slovenia) <i>Title: Interplay between chaotic and regular motion in time-dependent galaxy models</i>
13:00-14:30	Lunch Break
<i>Afternoon session</i>	Chair: N. Surlas
14:30-15:10	Manolis Floratos (University of Athens, Greece) <i>Title: Quantum Computation and Strong Arithmetic Chaos</i>
15:10-15:50	Zafer Gedik (Sabanci University, Istanbul, Turkey) <i>Title: Quantum Computing with a Single Qudit</i>
15:50-16:10	Aikaterini Mandilara (Nazarbayev University, Kazakhstan) <i>Title: Classifying quantum multipartite entanglement</i>
16:10-16:30	Patrick Navez (University of Crete, Greece) <i>Title: Large coordination number expansion for the dynamical description of quantum lattice systems</i>
16:30-17:00	Coffee Break
17:00-17:20	Umit Akinci (Dokuz Eylul University, Turkey) <i>Title: Anisotropic Heisenberg Model on Core-Shell Structured Nanotube Geometry</i>
17:20-17:40	M. Vasilakaki, G. Margaris, K. N. Trohidou, D. Peddis, D. Fiorani (National Center for Scientific Research “Demokritos”, Athens, Greece) <i>Title: A Monte Carlo Study of the Surface Effects on the Dynamic Behaviour of Dense Magnetic Nanoparticle Assemblies</i>

18:00-19:00

Special lecture

Costas Vayenas (University of Patras & Academy of Athens, Greece)

Title: A Bohr-type model of a composite particle using gravity as the attractive force