

CONFERENCE PROGRAM

MONDAY, JULY 11

	Plenary	Welcome Addresses & Opening Ceremony (Room A)	Monday 11
10.30 - 10.35	G. Kaniadakis	Conference Chairman	Chair
10.35 - 10.40		Cyprus Ministry of Education	A. Carbone
10.40 - 10.45		Mayor of Larnaca	
10.45 - 10.50		European Physical Society - Nonlinear and Statistical Physics Division Chair	
10.50 - 11.00		SigmaPhi Round Table Nomination	
11.00 - 12.30		Round Table "Future Challenges & Perspectives of Statistical Physics"	
12.30 - 12.45		Group Photo	
13.00 - 15.00		Lunch	
	Workshop	MATHEMATICAL PHYSICS (Room B)	Monday 11
15.00 - 15.35	V. Dragovic	Algebro-geometric approach to Yang-Baxter equation	Chair
15.40 - 16.15	R. Fernandes	Non-commutative integrable systems	P. Damianou
16.20 - 16.55	A. Veselov	Classical and quantum generalisations of Dirac magnetic monopole	
17.00 - 17.30		Coffee break	
17.30 - 17.55	P. Ruiz Gordoa	Two types of auto-Backlund transformation for integrable partial differential....	Chair
18.00 - 18.25	D. Ellinas	Classical Randomness Induced Transitions in Quantum Walks	R. Fernandes
18.30 - 18.55	A. Pickering	On the nesting of Painleve hierarchies	
	Workshop	COMPLEX NETWORKS (Room C)	Monday 11
15.00 - 15.35	Z. Burda	Maximal entropy random walk	Chair
15.40 - 16.15	A. Fronczak	International trade network: a statistical mechanics perspective	G. Caldarelli
16.20 - 16.55	V. Constantoudis	Network analysis of rough surfaces	
17.00 - 17.30		Coffee break	
17.30 - 17.55	D.S. Lee	Return-to-origin probability in scale-free networks: crossover behaviors and....	Chair
18.00 - 18.25	A. Mozeika	Exact solution of Boolean dynamics with random connections, thermal noise...	L. Leuzzi
18.30 - 18.55	M. Rajkovic	Statistical Mechanics of Simplicial Complexes: Combinatorial Laplacian and	
19.00 - 19.25	S. Caracciolo	A theory for Morphogenesis in the Deterministic Abelian Sandpile	
	Workshop	ECONOPHYSICS and SOCIOPHYSICS (Room D)	Monday 11
15.00 - 15.35	G. Ballot	Love thy neighbor. A firm based multi-country model with international	Chair
15.40 - 16.15	N. Shnerb	Names, terror, wealth and politics: the role of fortune in complex systems	S. Solomon
16.20 - 16.55	S. Thurner	Entropy of non-ergodic systems - A derivation from first principles	
17.00 - 17.30		Coffee break	
17.30 - 17.55	V. Gontis	Power-law statistics of bursts generated by the nonlinear stochastic	Chair
18.00 - 18.25	M. Cristelli	There Is More Than a Power Law in Zipf	N. Shnerb
18.30 - 18.55	T. Lapinski	Limit theorem leading to Bose-Einstein, Boltzmann, Zipf Law and application	
	Workshop	NANOPHYSICS (Room E)	Monday 11
15.00 - 15.35	E. Andrei	Probing Dirac fermions in graphene: from Landau levels to fractional quantum..	Chair
15.40 - 16.15	G. Montambaux	Motion and merging of Dirac points in two-dimensional crystals	F.V. Kusmartsev
16.20 - 16.55	E. Sonin	Conductance, shot noise, and Klein tunneling in ballistic graphene	
17.00 - 17.30		Coffee break	
17.30 - 17.55	L. Chalmers	Semi-classical analysis of Klein tunneling through a smooth barrier	Chair
18.00 - 18.25	F. Aliev	Conductance and noise in fully epitaxial magnetic tunnel junctions	K. Kugel
18.30 - 18.55	P. Talkner	Quantum fluctuation relations	
19.00 - 19.30	L. Gammaitoni	Fluctuations energy harvesting with nonlinear oscillators	
19.30 - 19.55	V. Constantoudis	Sidewall roughness and dimensional variability of features on nanoscale: The....	

Workshop**BIOPHYSICS (Room F)****Monday 11**

15.00 - 15.35	A. Laio	Mechanical self-organization of growing acting networks	Chair
15.40 - 16.15	M. Turner	Non-local models of swarming	F. Seno
16.20 - 16.55	C. Brackley	Limited Resources in an asymmetric exclusion process: A model of protein	
17.00 - 17.30	Coffee break		
17.30 - 17.55	G. Gonnella	Self-propelled particles under shear	Chair
18.00 - 18.25	C. Deroulers	Collective behaviour of cell assemblies: Understanding the microscopic....	I. Pagonabarraga
18.30 - 18.55	M. Zagórski	Model gene regulatory networks under mutation-selection balance	
19.00 - 19.30	C.-K. Hu	Relaxation and aggregation of polymer chains and their biological implications	

MAIN CONFERENCE (Room A)

Tuesday 12

08.30 - 09.05	H.J. Herrmann	Watersheds, bridges and explosive percolation	Chair
09.10 - 09.45	A. Hansen	Effective Permeability Scaling in Immiscible Two-Phase Flow in Porous Media	D. Hristopulos
09.50 - 10.25	C. Masoller	Inferring long memory processes in the climate network via ordinal pattern....	
10.30 - 11.00	Coffee break		
11.00 - 11.35	S. Chapman	Order and control parameters in driven, dissipating systems- parallels from	Chair
11.40 - 12.15	D. Hristopulos	On the use of the Weibull distribution as a model for the distribution of	H.J. Herrmann
12.20 - 12.55	P. de Anna	Upscaling of transport in correlated non Gaussian velocity fields:	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room B)

Tuesday 12

08.30 - 09.05	G.P. Beretta	Steepest-entropy-ascent non-equilibrium dynamics is thermodynamically	Chair
09.10 - 09.45	R. Kosloff	Quantum Refrigerators: The quest for the absolute zero	S. Abe
09.50 - 10.25	K. Lindenberg	Finite Time Thermodynamics of a Single-Level Quantum Dot	
10.30 - 11.00	Coffee break		
11.00 - 11.35	R.S. Johal	Bayesian perspective on maximum work characteristics of quantum heat	Chair
11.40 - 12.15	S. Abe	Gauge-theoretic structure in quantum thermodynamics	G.P. Beretta
12.20 - 12.55	J. Pesek	Quasistatic heat processes in mesoscopic non-equilibrium systems	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room C)

Tuesday 12

08.30 - 09.05	H. Taitelbaum	Persistence in reactive-wetting interfaces	Chair
09.10 - 09.45	D.A. Stariolo	Nematic order of interfaces in systems with competing interactions	A. Hansen
09.50 - 10.25	T. Hewett	Extraordinary Magnetoresistance: Sensing the future	
10.30 - 11.00	Coffee break		
11.00 - 11.35	M. Vasin	Gauge theory of glass transition	Chair
11.40 - 12.15	M. Paoluzzi	Dynamic of the secondary processes in a mean-field exactly solvable model	G. Montambaux
12.20 - 12.55	U. Ferrari	Spin-glass model and inverse phase transition	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room D)

Tuesday 12

08.30 - 09.05	A. Lindenberg	Anomalous Diffusion and Morphogen Gradients	Chair
09.10 - 09.45	S. Chapman	Anomalous diffusion and characterizing the fluctuating fields of finite sized	I. Eliazar
09.50 - 10.25	N. Watkins	Volatility clustering, 'mild' multifractals and the Kesten process	
10.30 - 11.00	Coffee break		
11.00 - 11.35	I. Eliazar	Randomized Central Limit Theorems	Chair
11.40 - 12.15	R. Voituriez	Normal and anomalous transport in transcription kinetics	A. Lindenberg
12.20 - 12.55	B. Meyer	Universality classes of first-passage time distribution in confined media	
13.00 - 15.00	Lunch		

Workshop

MATHEMATICAL PHYSICS (Room B)

Tuesday 12

15.00 - 15.35	P. Damianou	Intermediate Toda Systems	Chair
15.40 - 16.15	F. Magri	Some remarks on Frobenius Manifolds	C. Sophocleous
16.20 - 16.55	O. Ragnisco	Integrable Maps from classical Gaudin models	
17.00 - 17.30	Coffee break		
17.30 - 17.55	St. Charalambides	so(p,q) Toda Lattice	Chair
18.00 - 18.25	Z. Tsvir	A description of the evolution of quantum states by means of the kinetic equation	A. Veselov
18.30 - 18.55	A. Karlis	A consistent approach for the treatment of Fermi acceleration in time	

Workshop**COMPLEX NETWORKS (Room C)****Tuesday 12**

15.00 - 15.35	L. Leuzzi	The Levy lattice: a new kind of small world lattice and its implementation to	Chair
15.40 - 16.15	A. Astillero	Temporal evolution of a granular gas in the uniform longitudinal flow. A	J.W. Lee
16.20 - 16.55	D. Cellai	Critical phenomena in heterogeneous k-core percolation	
17.00 - 17.30	Coffee break		
17.30 - 17.55	J.W. Lee	Network Properties of Bipartite Ecological Networks	Chair
18.00 - 18.25	J. Ochab	Dynamics of Maximal Entropy Random Walk: Solvable Cases	V. Constantoudis
18.30 - 18.55	S. Wieland	Steady-State Topologies of Adaptive Networks	

Workshop**ECONOPHYSICS & SOCIOPHYSICS (Room D)****Tuesday 12**

15.00 - 15.35	M. Milakovic	Statistical equilibrium and the process of competition	Chair
15.40 - 16.15	A. Vignes	Modeling urban housing market dynamics: can the socio-spatial	S. Thurner
16.20 - 16.55	S. Solomon	Economic Complexity, Crisis and Recovery	
17.00 - 17.30	Coffee break		
17.30 - 17.55	A. Carbone	Self-Similarity of Higher-Order Moving Averages	Chair
18.00 - 18.25	B. Cabella	Data Collapse, Scaling Functions and New Analytical Solutions of Generalized....	L. Pietronero
18.30 - 18.55	G. Bormetti	Multiplicative noise, moment scaling, and fast convolution	
19.00 - 19.25	A. Zaccaria	Universal Relation between Skewness and Kurtosis in Complex Dynamics	

Workshop**NANOPHYSICS (Room E)****Tuesday 12**

15.00 - 15.35	M. Fromhold	The interplay between ultracold atoms, semiconductor surfaces and quantum....	Chair
15.40 - 16.15	A. Balanov	Effects of temperature on charge transport in semiconductor superlattice in....	E. Andrei
16.20 - 16.55	F. Kusmartsev	A stable form of two-dimensional crystals: is graphene a glass?	
17.00 - 17.30	Coffee break		
17.30 - 18.00	N. Janson	Automatic and unsupervised discovery and recognition of patterns by a....	Chair
18.00 - 18.30	M. Milosevic	Two-band superconductors in Ginzburg-Landau theory	M. Saarela
18.30 - 19.00	M. Telo da Gama	From molecules to network fluids: Condensation or percolation?	
19.00 - 19.30	G. Kharlamov	Surface tension calculations of nanodrops and Thomas Hewett, extraordinary	
19.30 - 19.55	T. J. Arruda	Electromagnetic field energy within concentric infinite cylinders at oblique incidence	

Workshop**BIOPHYSICS (Room F)****Tuesday 12**

15.00 - 15.35	E. Domany	Complex dynamics of transcriptional response: how do cells get on the fast....	Chair
15.40 - 16.15	E. Carlon	Anomalous dynamics in DNA hairpin closing times	M. Lassig
16.20 - 16.55	Y. Kafri	Target Location on DNA	
17.00 - 17.30	Coffee break		
17.30 - 17.55	V. Morozov	Generalized Model of Polypeptide Chain (GMPC) and the helix-coil transition....	Chair
18.00 - 18.25	A. Kabakcioglu	Writhe and twist in DNA circles and their melting behavior	Y. Kafri
18.30 - 18.55	D. Valenti	Monte Carlo study of external noise influence on polymer translocation	
19.00 - 19.25	J. Karschau	Optimal Origin Placement in DNA Replication	

19.30 - 22.00

Board Meeting of the NSP-EPS
Nonlinear and Statistical Physics Division of the European Physical Society

MAIN CONFERENCE (Room A)

Wednesday 13

08.30 - 09.05	M.A. Nowak	Multiplication and addition laws for large random matrices	Chair
09.10 - 09.45	A.Y. Abul-Magd	κ -deformed random matrix theory based on Kaniadakis entropy	P. Harremoës
09.50 - 10.25	M. Trovato	A proper nonlocal formulation of the Quantum Maximum Entropy Principle in	
10.30 - 11.00	Coffee break		
11.00 - 11.35	P. Harremoës	Exergy and information	Chair
11.40 - 12.15	A. Ohara	Conformal geometry of escort probabilities and its application to Voronoi....	M.A. Nowak
12.20 - 12.55	G. Pistone	Algebraic Statistics and Information Geometry of Reversible Markov Chains	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room B)

Wednesday 13

08.30 - 09.05	S. Ruffo	Self-consistent steady states in Hamiltonian mean field dynamics	Chair
09.10 - 09.45	A. Robledo	Stationary states of the Hamiltonian mean-field model and a renewal	S. Fauver
09.50 - 10.25	P.-H. Chavanis	Recent results on long-range interacting systems: the example of the HMF model	
10.30 - 11.00	Coffee break		
11.00 - 11.35	B. Marcos	Relaxation of quasi-stationary states in long range interacting systems and....	Chair
11.40 - 12.15	A. Giacometti	Self-Assembly mechanism in colloids	S. Ruffo
12.20 - 12.55	A. Gordillo-Guerrero	Characterizing a strong first order phase transition on a 3D diluted system	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room C)

Wednesday 13

08.30 - 09.05	S. Sarkar	Superstatistics in Models of Space-Time foam in String Theory	Chair
09.10 - 09.45	Z. Włodarczyk	The imprints of superstatistics in multiparticle production processes	C. Beck
09.50 - 10.25	P. Jizba	Superstatistics approach to Special and Doubly Special Relativity	
10.30 - 11.00	Coffee break		
11.00 - 11.35	C. Beck	Statistical mechanics of the vacuum	Chair
11.40 - 12.15	P. Ván	Kinetic theory and relativistic thermodynamics	S. Sarkar
12.20 - 12.55	D. Mostacci	Quantum relativistic distribution function for bosons and fermions	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room D)

Wednesday 13

08.30 - 09.05	I. Procaccia	The elusive length scale characterizing the glass transition	Chair
09.10 - 09.45	M. Magdziarz	Ergodic properties of anomalous diffusion	S. Chapman
09.50 - 10.25	R. Metzler	Random motion in complex systems, ergodicity breaking, and single-particle....	
10.30 - 11.00	Coffee break		
11.00 - 11.35	A. Santos	Velocity cumulants and correlations in a granular gas of rough spheres	Chair
11.40 - 12.15	J. Talbot	Kinetics of a frictional granular motor	P.H Chavanis
12.20 - 12.55	R.J. Wijngaarden	Experimental investigations of power laws and self organized criticality in....	
13.00 - 15.00	Lunch		

Workshop

MATHEMATICAL PHYSICS (Room B)

Wednesday 13

15.00 - 15.35	T. Koide	Derivation of Navier-Stokes equation using Stochastic variational method	Chair
15.40 - 16.15	F. Caltagirone	On the Decay Exponents of Mode Coupling Theory	M. Milosevic
16.20 - 16.55	K. Lewandowska	Hyperbolic subdiffusive impedance	
17.00 - 17.30	Coffee break		
17.30 - 17.55	P. Paradisi	Diffusion scaling analysis based on renewal theory: an application to ...	Chair
18.00 - 18.25	T. Motoike	Hierarchical Structures of Periodic Orbits and Multifractal Structure of Fully	T. Koide
18.30 - 18.55	M. Milosevic	Two-band superconductors in Ginzburg-Landau theory	

Workshop**COMPLEX NETWORKS (Room C)****Wednesday 13**

15.00 - 15.35	A. Gabrielli	Ranking and clustering countries and their products: a network analysis	Chair
15.40 - 16.15	G. Tsironis	Discrete nonlinear Schrödinger equation dynamics in complex networks	S. Melnik
16.20 - 16.55	J. G. Gardenes	Explosive Synchronization Transition in Complex Networks	
17.00 - 17.30	Coffee break		
17.30 - 17.55	C. Cianti	Non Gaussian corrections and finite size effects in a model of autocatalytic....	Chair
18.00 - 18.25	S. Melnik	Multi-stage cascades	G. Tsironis
18.30 - 18.55	G. Palla	Rotated multifractal network generator	

Workshop**ECONOPHYSICS & SOCIOPHYSICS (Room D)****Wednesday 13**

15.00 - 15.35	H. Takayasu	Temperature dependence of consumption behaviors and optimization of sales...	Chair
15.40 - 16.15	G. Stanley	Economic fluctuations and statistical physics: Quantifying extremely rare....	G. Caldarelli
16.20 - 16.55	A. Stella	How to model asset dynamics on the basis of dependence, anomalous scaling....	
17.00 - 17.30	Coffee break		
17.30 - 17.55	F. Kusmartsev	Statistical Mechanics of Economics	Chair
18.00 - 18.25	L. Kristoufek	Multifractal Height Cross-Correlation Analysis	G. Stanley
18.30 - 18.55	D. Delpini	Minimal model of financial stylized facts	

Workshop**NANOPHYSICS (Room E)****Wednesday 13**

15.00 - 15.35	S. Kravchenko	Metal-Insulator Transition in two-dimensional electron gas	Chair
15.40 - 16.15	M. Saarela	Nanoscale structures and giant Nernst effect below the pseudogap in under....	G. Montambaux
16.20 - 16.55	A. Zagoskin	Quantum engineering: From artificial atoms to quantum metamaterials	
17.00 - 17.30	Coffee break		
17.30 - 17.55	A. Klushin	Tunable oscillators based on Josephson junctions	Chair
18.00 - 18.25	A. Sanchez	Modelling the effect of magnetic dots on the transport and magnetic	A. Balanov
18.30 - 18.55	S. Charfi-Kaddour	Inhomogeneous superconductivity: effect of disorder on Carbon nanotubes....	

Workshop**BIOPHYSICS (Room F)****Wednesday 13**

15.00 - 15.35	V. Muñoz	Downhill Protein Folding Peculiarities of Living in a World without Barriers	Chair
15.40 - 16.15	A. Irback	Monte Carlo studies of protein aggregation	A. Laio
16.20 - 16.55	B. Zagrovic	Microscopic analysis of protein oxidative damage: effect of carbonylation on	
17.00 - 17.30	Coffee break		
17.30 - 17.55	P. Cossio	Exploring the universe of protein structures beyond the Protein Data Bank	Chair
18.00 - 18.25	A. Trovato	A new physics-based approach to model quality assessment of protein	A. Irback
18.30 - 18.55	P. Tamamis	Molecular Dynamics Simulations Tackle the Species Specificity of the	

20.30 - 23.30

Gala Dinner

**During the dinner the FuturICT FET Flagship Program
of the European Commission will be presented to the SigmaPhi Community**

MAIN CONFERENCE (Room A)

Thursday 14

08.30 - 09.05	G. Parisi	Theoretical advances in off-equilibrium behavior	Chair
09.10 - 09.45	H.S. Wio	Recent developments on the KPZ equation	J.P. Boon
09.50 - 10.25	F. Pétrélis	Effects of multiplicative noise on instabilities	
10.30 - 11.00	Coffee break		
11.00 - 11.35	G.K. Er	The Probabilistic Solutions of Some Large Nonlinear Stochastic Dynamic	Chair
11.40 - 12.15	X.-X. Guo	The Probabilistic Solutions of Stochastic Oscillators with Even Nonlinearity in	H.S. Wio
12.20 - 12.55	F. Raischel	Diffusion Eigensystems of Stochastic Processes	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room B)

Thursday 14

08.30 - 09.05	S. Fauve	Random reversals of the magnetic field generated by turbulent flows	Chair
09.10 - 09.45	A. Alexakis	On-Off instability in a dynamo flow	H. Touchette
09.50 - 10.25	J. Vanneste	Passive-scalar decay in chaotic flows	
10.30 - 11.00	Coffee break		
11.00 - 11.35	F. De los Santos	Renormalisation group determination of the order of the DNA denaturation....	Chair
11.40 - 12.15	G. Delfino	New universal results for two-dimensional percolation. Connectivities and	E. Marinari
12.20 - 12.55	S.N. Dorogovtsev	Why the "explosive percolation" transition is actually continuous	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room C)

Thursday 14

08.30 - 09.05	C. Tsallis	Exploring the region where the hypothesis validating Boltzmann-Gibbs	Chair
09.10 - 09.45	F. Nobre	Nonlinear Fokker-Planck Equations with Competing Diffusive Terms: Solutions....	A. Robledo
09.50 - 10.25	T. Oikonomou	Is Shannon entropy always additive?	
10.30 - 11.00	Coffee break		
11.00 - 11.35	A. Rodríguez	A generalization of the cumulant expansion. Application to a scale-invariant	Chair
11.40 - 12.15	T. Kosztolowicz	Nonextensive entropy approach versus fractional model to describe....	C. Tsallis
12.20 - 12.55	G. Livadiotis	Thermostatistics of plasmas in nonequilibrium stationary states	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room D)

Thursday 14

08.30 - 09.05	J. Luczka	Distance between states of an open quantum system	Chair
09.10 - 09.45	M. Kastner	Diverging equilibration times in long-range quantum spin models	B. Spagnolo
09.50 - 10.25	J. Naudts	Supersymmetry in models of strongly correlated electrons	
10.30 - 11.00	Coffee break		
11.00 - 11.35	B. Spagnolo	Relaxation phenomena in classical and quantum systems	Chair
11.40 - 12.15	S. Deffner	Nonequilibrium entropy production for open quantum systems	J. Luczka
12.20 - 12.55	M. Saikhanov	Quantization Of Nonequilibrium Nonstationary System	
13.00 - 15.00	Lunch		

Workshop

ECONOPHYSICS & SOCIOPHYSICS (Room B)

Thursday 14

15.00 - 15.35	M. Ifti	Electoral Systems and Distribution of Votes	Chair
15.40 - 16.15	K. Yamada	Collective human behavior in the cyber space communication	G. Ballot
16.20 - 16.55	R. Kenna	The sociophysics of collaborative research: Critical mass and the dependence....	
17.00 - 17.30	Coffee break		
17.30 - 17.55	W. Li	Reinforcement Learning in Complementarity Game and Population Dynamics	Chair
18.00 - 18.25	E.-O. Lungu	Patterns in the occupational mobility networks of the higher education....	M. Ifti
18.30 - 18.55	N. Destefano	Unification of the psychophysical laws and the additive property of the....	
19.00 - 19.25	D.Y. Kenett	Amplification of uniformity and multiformity in the stressed global market	

Workshop**ECONOPHYSICS & SOCIOPHYSICS (Room D)****Thursday 14**

15.00 - 15.35	L. Pietronero	Complexity from Natural to Socio-Economic Sciences	Chair
15.40 - 16.15	A. Nowak	Social dynamics of financial markets	H. Takayasu
16.20 - 16.55	P. Argyrakis	Worldwide spreading of economic crises	
17.00 - 17.30	Coffee break		
17.30 - 17.55	E. Piotrowski	Binary bets revisited: physicist point of view	Chair
18.00 - 18.25	G. Livan	The fine structure of spectral properties for random correlation matrices: an	Z. Burda
18.30 - 18.55	T. Tokar	Multi-agent analysis of financial data	
19.00 - 19.25	E.-O. Lungu	Power law and scaling analysis for the Bucharest Stock Exchange	

Workshop**COMPLEX NETWORKS (Room C)****Thursday 14**

15.00 - 15.35	J.F. Mendes	Bootstrap Percolation on Complex Networks	Chair
15.40 - 16.15	T. Aste	A network approach to capture both local clustering and global organization in....	W. Miura
16.20 - 16.55	E. Sloutskin	Long-range orientational correlations and rotational anisotropy in random....	
17.00 - 17.30	Coffee break		
17.30 - 17.55	L. Lacasa	Feigenbaum graphs: a complex network perspective of chaos	Chair
18.00 - 18.25	W. Miura	Statistical properties of Japanese business firm network and a probabilistic....	T. Aste
18.30 - 18.55	F. Perez-Reche	Synergy in complex spreading processes on networks	

Workshop**NANOPHYSICS (Room E)****Thursday 14**

15.00 - 15.35	Y.W. Park	Carbon nano-electronics - The super M conductivity and more	Chair
15.40 - 16.15	K. Hirata	Vortices in superconducting nano-networks with anti-dot arrays	J.-M. Triscone
16.20 - 16.55	K. Kadowaki	THz radiation from superconducting nano-sources	
17.00 - 17.30	Coffee break		
17.30 - 17.55	V. Kabanov	Current-voltage characteristic of narrow superconducting wires: bifurcation....	Chair
18.00 - 18.25	N. Combe	Nanoscale self-organization using standing surface acoustic waves	E. Sonin
18.30 - 18.55	D. Elford	Matryoshka locally resonant sonic crystal	
19.00 - 19.25	U. Marini B. M.	Dynamic approach to flowing liquids in confined systems	
19.30 - 19.55	M. Cirillo	Tunnelling and weak localization in carbon nanotube bundles aggregates	

Workshop**BIOPHYSICS (Room F)****Thursday 14**

15.00 - 15.35	U. Alon	Design principles of biological circuits	Chair
15.40 - 16.15	M. Lässig	Survival of the Fattest, the Flatteest, or the Fastest? The role of fluctuations in	E. Carlon
16.20 - 16.55	I. Pagonabarraga	Transport and pattern formation in internally actively driven systems	
17.00 - 17.30	Coffee break		
17.30 - 17.55	G. Aquino	Optimal receptor-cluster size determined by intrinsic and extrinsic noise	Chair
18.00 - 18.25	R. Guantes	Trade-offs and noise tolerance in signal detection by genetic networks	B. Zagrovic
18.30 - 18.55	L.R. Zastrow	The sarcomere as a structured ensemble of molecular motors	
19.00 - 19.25	K. Lee	Dynamics of neural network with depressing synapses: synchronization, global	

MAIN CONFERENCE (Room A)

Friday 15

08.30 - 09.05	J.P. Boon	Generalized Reaction-Diffusion: a microscopic approach	Chair
09.10 - 09.45	H. Touchette	Limitations of statistical mechanics: Hints from large deviation theory	E. Curado
09.50 - 10.25	P. Tempesta	Group Entropies	
10.30 - 11.00	Coffee break		
11.00 - 11.35	E. Curado	Nonlinear Fokker-Planck equations, entropies and applications	Chair
11.40 - 12.15	M.P. Leubner	Nonextensive network statistics and hierarchically nested structure scales	F. Nobre
12.20 - 12.55	J. Naudts	The exponential family in statistical physics and beyond	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room B)

Friday 15

08.30 - 09.05	E. Marinari	Metabolic networks: a thermodynamical analysis based on the Von Neumann....	Chair
09.10 - 09.45	J.-M. Triscone	New Phenomena at Oxide Interfaces	J. Naudts
09.50 - 10.25	K. Mallick	Applications of Non-Equilibrium Relations to Biophysics	
10.30 - 11.00	Coffee break		
11.00 - 11.35	S. Stramaglia	Nonlinear analysis of EEG from migraine brains	Chair
11.40 - 12.15	P. Paradisi	Fractal intermittency in integrated neural dynamics	H. Fogedby
12.20 - 12.55	D. Foster	Critical behaviour of the generalised two-dimensional self-avoiding trails....	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room C)

Friday 15

08.30 - 09.05	J.M. Parrondo	Dissipation and irreversibility in stationary trajectories	Chair
09.10 - 09.45	H. Fogedby	Large deviation functions for systems coupled to two thermostats	E. Gudowska-Nowak
09.50 - 10.25	C. Antoine	Nonlinear hydrodynamic corrections to exothermic chemical wave fronts	
10.30 - 11.00	Coffee break		
11.00 - 11.35	E. Gudowska-Nowak	Dynamical response of systems driven by Lévy-type noises	Chair
11.40 - 12.15	G. Pavlov	Nonlinear response theory of non-ideal systems	J.M. Parrondo
12.20 - 12.55	M. Clerc	Coated solitons	
13.00 - 15.00	Lunch		

MAIN CONFERENCE (Room D)

Friday 15

08.30 - 09.05	T. Arimitsu	On a new interpretation of turbulence via the scaling relation of A&A model	Chair
09.10 - 09.45	D. Hristopulos	Langevin Equations, Random Fields and Applications to Inverse Problems in....	S.B. Yuste
09.50 - 10.25	A. Fiasconaro	Models of driven polymer translocation	
10.30 - 11.00	Coffee break		
11.00 - 11.35	S.B. Yuste	Finite Difference Methods with Variable Timesteps for Fractional Diffusion....	Chair
11.40 - 12.15	G. Rossi	A first principle derivation of the stress tensor of a discrete system	T. Arimitsu
12.20 - 12.55	A. Herman	Inelastic collisions and clustering of sea ice floes - the influence of floe-size	
13.00 - 15.00	Lunch		

Workshop

ECONOPHYSICS & SOCIOPHYSICS (Room B)

Friday 15

15.00 - 15.35	G. Kleppe	Complexity from strategic choices during ship maneuvering	Chair
15.40 - 16.15	K.-T. Tsai	Effect of overnight gap on financial return and volatility in Taiwan stock market	A. Nowak
16.20 - 16.55	J. Ślaskowski	Generalization of the Aoki-Yoshikawa Sectoral Productivity Model	
17.00 - 17.30	Coffee break		
17.30 - 17.55	D. Faranda	Numerical convergence of the block-maxima approach to the Generalized....	Chair
18.00 - 18.25	B. Kaulakys	Nonextensive statistical mechanics distributions and the dynamics of financial....	M. Milakovic
18.30 - 18.55	A. Petersen	Quantifying Career Growth and Career Longevity in Academia	

Workshop**ECONOPHYSICS & SOCIOPHYSICS (Room D)****Friday 15**

15.00 - 15.35	Z. Burda	Random Matrix Analysis of Financial Data	Chair
15.40 - 16.15	E. Ben-Jacob	The US market stays prone to systemic collapses	P. Argyrakis
16.20 - 16.55	G. Caldarelli	Interdisciplinary applications of statistical physics	
17.00 - 17.30	Coffee break		
17.30 - 17.55	C. Lucheroni	Price Spikes in Electricity Markets and Stochastic Resonating Spiking	Chair
18.00 - 18.25	T. Ohnishi	Characteristics of bubble in house price distribution of Japan	E. Ben-Jacob
18.30 - 18.55	M. Takayasu	Empirical laws and mathematical models for the statistics and structure of....	

Workshop**NANOPHYSICS (Room C)****Friday 15**

15.00 - 15.35	K. Kugel	Nanoscale phase separation in materials with strongly correlated electrons	Chair
15.40 - 16.15	A. Carbone	Quasiparticle fluctuation power spectra in layered superconductors	K. Kadowaki
16.20 - 16.55	E. Shimshoni	Superconductor-insulator magneto-oscillations in superconducting strips	
17.00 - 17.30	Coffee break		
17.30 - 17.55	M. Ferrier	Probing the dynamics of Andreev states in a coherent Normal....	Chair
18.00 - 18.25	G. Berdiyorov	Intermediate-state flux structures in mesoscopic type-I superconductors -....	P. Hedegård
18.30 - 18.55	M. Forrester	Analytical and numerical studies of magnetic nanodiscs and their responses to	
19.00 - 19.25	B. Rutten	Cooling by heating	

POSTER SESSION

Posters will be exposed in the hall from Tuesday 08.30 to Friday 14.00

N. Arimitsu	Verification of the scaling relation within Multifractal Probability Density Function Theory by analyzing PDFs from
L. Athanasopoulou	Fractal properties revealed in genome sequences through a block entropy approach
A. Bashan	Percolation in networks composed of connectivity and dependency links
A. Bondarev	Monte Carlo Simulation of Spin-Glass Properties of Amorphous Magnets with Random Anisotropy
M. Borowko	A Density Functional Approach to Adsorption of Mixtures on Surfaces Modified with End-Grafted Polymers
M. Bose	Noise-assisted tumor-immune cells reaction
H. Cencarikova	Simple model of magnetization processes in rare-earth tetraborides
R. Corrado	Time fluctuations of vegetation patterns and early warning signals of desertification transition in semi-arid ecosystems
V. Constantoudis	Entropy analysis of word-length series of natural language texts: Effects of
M. Daoud	Percolation threshold of a random network of two dimensional sticks
J.I. Deza	Exact solutions to nonlinear Fokker-Planck equations
P. Farkasovsky	Simple model of magnetization processes in rare-earth tetraborides
V. Frette	The time needed to board an airplane: a power law and the structure behind it
A. Fronczak	General, combinatorial formula for the density of states: insights into the energy equipartition principle and the
G. Gervino	Nonextensive statistical effects in the quark-gluon plasma formation at relativistic heavy ion collisions energies
M. Golshan	Position Dependent Entanglement of Electronic spin-subband states in a Rashba Nanoloop
M. Golshan	The Dynamical Behavior of Spin-Subband Entanglement in a Rashba-Dresselhaus nanoloop
J. Inoue	Optimization and statistical estimation in image processing via Langevin equations
B. Jiménez de Cisneros	Thermodynamic potentials and non-isolated adiabatic pistons
M. Komatsuzaki	On Cantor sets associated with unstable periodic orbits generated by the logistic map
F. Kusmartsev	Flux-Flow Oscillator (FFO) made with the Fluxon Cloning
F. Kusmartsev	Huge linear magnetoresistance in graphene on graphite
J.W. Lee	Wealth redistribution models on complex network and evolution of nation's wealth in world trade network
J.W. Lee	Effects of Intraday Patterns on Analysis of Stock Market Index
I. Lelidis	Induced magnetic field transition in a strong anchoring Cholesteric-Nematic model
G. Livadiotis	The entire N-particle kappa distribution
A. Losdorfer Bozic	Electrostatic self-energy of a partially formed spherical shell in salt solution: the weak and strong coupling limits
K. Malarz	Simple cubic random-site percolation thresholds for complex neighborhoods
S. K. Mehdi	Canonical and grand canonical ensembles : discrepancy in thermodynamical quantities
S. Menchon	Neuronal (bi)polarity driven by membrane growth
M.A. Moosavi	Entanglement of two-level atoms and two photonic modes in Kerr media
M.A. Moosavi	Dynamics Of Entanglement between Photons and Pi-Electrons in Graphene
D. Mostacci	Wave propagation and Landau-type damping in liquids and dense gases
G. Murariu	Stat. analysis for air quality assessment A case study from Iasi region - Romania
G. Olivier	Non-equivalence of ensembles for quantum spin systems
G. Pavlov	Nonlinear response theory of non-ideal systems
A. Patrykiewicz	Freezing of mixed submonolayer films of argon and Krypton on graphite
F. Pennini	Fisher Information and Semiclassical Treatments
F. Perez-Reche	Epidemics in soil networks
T. Perlova	BioLCCC: polypeptide chromatography from a physicist's point of view
D. Persano Adorno	External Noise Effects in doped semiconductors operating under sub-THz signals
D. Persano Adorno	Monte Carlo investigation of electron spin relaxation in GaAs crystals during low-field transport
M. Petrakis	Investigation of avalanche recurrence interval statistics in fiber bundle models and connections with earthquake
A. Pires	Frustration and quantum phase transition in the anisotropic antiferromagnet on a square lattice
N. Pizzolato	Chronic Myeloid Leukemia: Stochastic modeling of cancer progression under intermittent therapies
F. Pouresmaeeli	Dynamics of Spin Qubits in Graphene
G. Ruiz	Time-Evolving Statistics of Chaotic Orbits of Conservative Maps
A. Santos	Are the virial coefficients and the close-packing of hard disks and hard spheres related?
A. Santos	Couette flow for an impurity immersed in a granular gas
G. Sezgin	The simulation of three dimensional spin-3/2 Ising model on a cellular automata with an external magnetic field
A.M. Scarfone	Relationships between the Legendre structure in the $\mathbb{S}_{\{2-q\}}$ formalism and the dually flat structure in the space
G. Sica	T=0 phase diagram of the 1D Hubbard model with magnetic interactions in the narrow-band limit
S. Sokolowski	Nanostructures in a binary mixture confined in slit-like pores with walls decorated with tethered polymer brushes
K. Takechi	Numerical simulation of 2D granular particles and its analyses by means of the micropolar fluid model
R. Tonelli	Pesin Identity at the edge of chaos: Averaging on single trajectories vs ensemble averages
K.-T. Tsai	Enhanced Stochastic Resonance of Individuals in Complex Networks
O. Valba	Matching of RNA-type sequences and statistical analysis of random RNA
R. Venkatesan	Deformed Statistics Framework for Deterministic Annealing
D. Volchenkov	Modularity and Informational Aspects of Classical Dance
D. Volchenkov	Dynamics and Evolution of Languages in the Indo-European and Austronesian Language Families
J. Wouters	Linear response of SRB measures to time-dependent perturbations
S. Yoon	Ising model on clustered complex networks: belief propagation algorithm
Y. Yura	Observation of market potentials by using a particle filter method
N. Zachariou	Self-organized criticality in a model of trade: aggregate fluctuations from independent sectoral shocks investigated
M. Zukovic	Dynamics of episodic transient correlations in financial time series and their predictability