

# WEDNESDAY

## Plenary

## MAIN CONFERENCE (Room KERKYRA)

Wednesday 12

08.30 - 09.10	Beck C.	<i>Complex systems in heterogeneous environments</i>	Chair
09.10 - 09.50	Toral R.	<i>Role of heterogeneity in stochastic agent-based models</i>	Chapman S.
09.50 - 10.30	Sourlas N.	<i>Recent progress in the Random Field Ising model</i>	

## Area A

## MAIN CONFERENCE (Room Kerkira)

Wednesday 12

10.30 - 11.00	Coffee break		
11.00 - 11.30	Topsøe F.	<i>Philosophy of information, some thoughts</i>	Chair
11.30 - 12.00	Boettcher S.	<i>Exploring quantum search algorithms with the renormalization group</i>	Toral R.
12.00 - 12.20	Caruso F.	<i>Quantum sensing by stochastic quantum Zeno</i>	
12.20 - 12.40	Korniyak V.	<i>Quantum models based on finite groups: statistical description</i>	
12.40 - 13.00	de los Santos F.	<i>Time scales at quantum phase transitions</i>	
13.00 - 13.20	de Lillo S.	<i>On the learning dynamics of complex living systems</i>	

Break

## Area B

## MAIN CONFERENCE (Room NAUSICA)

Wednesday 12

10.30 - 11.00	Coffee break		
11.00 - 11.30	Martín-Mayor V.	<i>Matching microscopic and macroscopic responses in glasses with the Janus II....</i>	Chair
11.30 - 12.00	Barkley D.	<i>Directed percolation and the onset of turbulence in shear flows</i>	Kourakis I.
12.00 - 12.20	Nizovtseva I.	<i>Methods of traveling waves in solutions of hyperolic phase field equation</i>	
12.20 - 12.40	Prokhorenko S.	<i>Fluctuations and topological defects in ferroelectrics</i>	
12.40 - 13.00	Rath C.	<i>Synchronization in systems with linear, yet nonreciprocal interactions</i>	

13:00

Break

## Area C

## MAIN CONFERENCE (Room ITHACA)

Wednesday 12

10.30 - 11.00	Coffee break		
11.00 - 11.30	Saad D.	<i>Topology, dynamics and the optimisation of spreading processes</i>	Chair
11.30 - 11.50	Dettmann C.	<i>Spatial networks with random connections</i>	Squartini T.
11.50 - 12.10	Ghanbarnejad F.	<i>Where higher order of interactions matters?</i>	
12.10 - 12.30	Ioannidis E.	<i>Positioning experts in knowledge networks</i>	
12.30 - 12.50	Zaccaria A.	<i>Following the product progression network to escape from the poverty trap</i>	
12.50 - 13.10	Antoniou I.	<i>Torus random numbers generators</i>	

13.10 - 13.30

## Panel discussion of Publishers

Chair  
Spagnolo B.

13:30

Break

## Workshop 4

## Statistical Physics of Environment, Climate and Ecosystems (Room LEUCAS)

Wednesday 12

10.30 - 11.00	Coffee break		
11.00 - 11.20	Ghil M.	<i>The physics of climate sensitivity: a tale of deterministic and stochastic ...</i>	Chair
11.20 - 11.40	Stainforth D.	<i>Climate Prediction in Model Land: On the roles of initial condition uncertainty...</i>	Hristopoulos D.
11.40 - 12.00	Ditlevsen P.	<i>Identifying the dynamics of abrupt climate changes using high resolution ice...</i>	
12.00 - 12.20	Bianucci M.	<i>Large scale Geophysical phenomena as emerging properties from fast complex...</i>	
12.20 - 12.40	Modest H.	<i>Nonlinear time series analysis of atmospheric gravity waves</i>	
12.40 - 13.00	Laepplé T.	<i>Space-time structure of climate variability</i>	

13:00

Break

**Workshop 6****Sociophysics and Econophysics (Room KROKIDIS)**

Wednesday 12

10.30 - 11.00

**Coffee break**

11.00 - 11.20	Asimakopoulos A.	<i>Multifractal urban morphology of historic city centers and of typical ...</i>	Chair
11.20 - 11.40	Neirrotti J.	<i>Consensus formation times in anisotropic societies</i>	Modanese G.
11.40 - 12.00	Prenga D.	<i>An approach for early stage of opinion formation</i>	
12.00 - 12.20	Ishii A.	<i>Effect of mass media, word-of-mouth and town umor in social media reputation...</i>	
12.20 - 12.40	Constantoudis V.	<i>Multifractal correlations in natural language written texts: Effects of language...</i>	
12.40 - 13.00	Yamada K.	<i>Dynamics of words popularity observed from large scale social data</i>	

13:00

**Break****Special Section A3****MAIN CONFERENCE (Room KERKIRA)**

Wednesday 12

15.00 - 15.25	Ruppeiner G.	<i>Extension of black hole thermodynamics with information geometry</i>	Chair
15.25 - 15.50	Banerjee R.	<i>Thermogeometric phase transition in a unified framework</i>	Naudts J.
15.50 - 16.10	Sahay A.	<i>Ruppeiner geometry and thermodynamic ensembles of anti-de Sitter black holes</i>	
16.10 - 16.35	Kalogeropoulos N.	<i>Non-additive entropies for black holes?</i>	
16.35 - 17.00	Tanaka M.	<i>Tau-information geometry and entropy</i>	
17.00 - 17.30	<b>Coffee break</b>		
17.30 - 17.55	Mancini S.	<i>The volume of Gaussian states by information geometry</i>	Chair
17.55 - 18.15	Pistone G.	<i>Second order structure of a finite sample space exponential manifold</i>	Ruppeiner G.
18.15 - 18.35	Ohara A.	<i>Doubly autoparallelism on the space of probability distributions</i>	
18.35 - 18.55	Henmi M.	<i>Statistics of the generalized maximum likelihood estimation in deformed....</i>	
18.55 - 19.20	Matsuzoe H.	<i>Unbiasedness of generalized score functions and sequential structures of expectations</i>	
19.20 - 19.40	Naudts J.	<i>Dually flat geometries in the state space of statistical models</i>	
19.40 - 20.00	Wada T.	<i>Information geometry on the thermal probability distributions for a weakly....</i>	

**Workshop 2****Statistical Physics for the Digital Economy (Room NAUSICA)**

Wednesday 12

15.00 - 15.30	Kondor I.	<i>Variance optimization with no short positions</i>	Chair
15.30 - 16.00	Pietronero L.	<i>Firms Complexity: Technological Scope, Coherence and Performance</i>	Di Matteo T.
16.00 - 16.30	Takayasu M.	<i>Growth dynamics of complex business firms network</i>	
16.30 - 17.00	Wilinski M.	<i>Intraday correlation structure for high frequency financial data</i>	
17.00 - 17.30	<b>Coffee break</b>		
17.30 - 18.00	Jensen H.	<i>Evolutionary dynamics of neighborhood economic status in cities</i>	Chair
18.00 - 18.30	Gabrielli A.	<i>The scientific and technological competitiveness of nations: a network analysis</i>	Caldarelli G.
18.30 - 19.00	Rapisarda A.	<i>A multilayer approach for price dynamics in financial markets</i>	
19.00 - 19.30	Petri G.	<i>Topological data analysis for complex systems</i>	

**Workshop 4****Statistical Physics of Environment, Climate and Ecosystems (Room ITHACA)**

Wednesday 12

15.00 - 15.30	Provata A.	<i>Chimera states in oscillatory dynamics</i>	Chair
15.30 - 16.00	Biswas S.	<i>Predicting failure in power grids</i>	Ghil M.
16.00 - 16.30	Valenti D.	<i>Picophytoplankton dynamics and chlorophyll distributions in a 2D spatial ....</i>	
16.30 - 17.00	Watkins N.	<i>Generalised and fractional Langevin equations-Implications for energy balance models</i>	
17.00 - 17.30	<b>Coffee break</b>		
17.30 - 18.00	Dubkov A.	<i>Exact results for steady-state probability characteristics of Verhulst and ....</i>	Chair
18.00 - 18.30	Freund J.	<i>Stochastic community dynamics and time scale dependent turnover rates</i>	Valenti D.
18.30 - 19.00	Hristopoulos D.	<i>A Connection between the damped harmonic oscillator in a heat bath and ...</i>	
19.00 - 19.30	Blesic S.	<i>Changes in the long-term properties of the Danube river flow induced by damming</i>	
19.30 - 20.00	Zukovic M.	<i>Modified planar rotator model for efficient gapfilling in spatial data</i>	

**Workshop 6****Sociophysics and Econophysics (Room LEUCAS)**

Wednesday 12

15.00 - 15.20	Roman S.	<i>Topology-dependent rationality and quantal response equilibria in structured....</i>	Chair
15.20 - 15.40	Squartini T.	<i>Inferring monopartite projections of bipartite networks: an entropy-based ...</i>	Costantoudis V.
15.40 - 16.00	Limnaios S.	<i>Network representation of geographical landscape data and their correlation...</i>	
16.00 - 16.20	Bertotti M.L.	<i>Economic inequality: a moral and political issue that statistical physics may ...</i>	
16.20 - 16.40	Modanese G.	<i>Statistics of correlations and fluctuations in a stochastic model of wealth ....</i>	
16.40 - 17.00	Lillo F.	<i>When panic makes you blind: a chaotic route to systemic risk</i>	
17.00 - 17.30	<b>Coffee break</b>		
17.30 - 17.50	Raducha T.	<i>Statistical mechanics approach to coevolving spin system</i>	Chair
17.50 - 18.10	Ohnishi T.	<i>Using network motif analysis to characterize the international trade network</i>	Bertotti M.L.
18.10 - 18.30	Sorrentino F.	<i>Energy scaling in optimal control of networks</i>	

**Workshop 1****Kappa Distributions and Statistical Mechanics (Room KROKIDIS)**

Wednesday 12

15.00 - 15.30	Summers D.	<i>Effects of kappa distributions on radiation belt dynamics</i>	Chair
15.30 - 16.00	Mace R.	<i>Linear waves and instabilities in plasmas with kappa velocity distributions</i>	Ogasawara K.
16.00 - 16.30	Kourakis I.	<i>On the modelling principles of electrostatic solitary waves and shocks in...</i>	
16.30 - 17.00	Devanandhan S.	<i>Ion acoustic solitary waves in space plasmas having kappa velocity distributed...</i>	
17.00 - 17.30	<b>Coffee break</b>		
17.30 - 18.00	Consolini G.	<i>Inhomogeneity and dynamical complexity in space plasmas</i>	Chair
18.00 - 18.30	Kucharek H.	<i>Kappa distributions and their relation to wave-particle interactions and ....</i>	Dialynas K.
18.30 - 19.00	Cui X.	<i>X-Ray spectra from plasmas with high-energy electrons: Kappa-distributions...</i>	
19.00 - 19.30	Fleishman G.	<i>Kappa distribution and active regions at the sun: probing with microwave</i>	