

NONLINEAR SCIENCE AND COMPLEXITY

INTERNATIONAL CONFERENCE Organized by:

Dipartimento di Metodi Quantitative e Teoria Economica, Università "G. d'Annunzio" and Center of Nonlinear Dynamics and Complex Systems

Chieti-Pescara, 28 – 31 July, 2009

LECTURE PROGRAM

TUESDAY, 28 JULY

Chairmen: Mari C., Nicolis G.

Morning Session: 09:00 – 13:00

- 09:00-10:00 Registration, Greetings
10:00-11:00 **Bountis T., Velarde M.G.:** On the scientific work of Professor Gregoire Nicolis
11:00-11:30 Coffee Break
11:30-13:00 **Nicolis G.** (Brussels): Frontiers in Complex Systems Research

Afternoon Session: 15:00 – 18:00

- 15:00-16:00 **Ruffini R.** (Roma): Einstein equations as leading in Astrophysics
16:00-17:00 **Kleinert H.** (Berlin): Disorder Description of Phase Transitions
17:00-18:00 **Subba Rao T.** (Manchester): Higher order spectra, nonlinear models and detection of Chaos

WEDNESDAY, 29 JULY

Chairmen: Bountis T., Subba Rao T.

Morning Session: 09:00 – 13:00

- 09:00-10:00 **Velarde M. G.** (Madrid): Complexity at the three-phase contact line (combining macrophysics and micro/mesophysics)
10:00-11:00 **Ebeling W.** (Berlin): Bound states of electrons with soliton-like excitations
11:00-11:30 **Chetverikov A. P.** (Saratov): Solitons in a heated nonlinear lattice: results of computer simulations
11:30-12:00 Coffee Break
12:00-13:00 **Subba Rao S.** (Texas): Normalised least squares estimation in time-varying ARCH models

Afternoon Session: 15:00 – 18:30

- 15:00-16:00 **Bountis T.** (Patras): Energy localization on q--tori, Nekhoroshev stability and the interpretation of FPU recurrences

- 16:00-17:00 **Skokos H.** (Dresden): Spreading of wave packets in one dimensional disordered chains
- 17:00-18:00 **Ruffo S.** (Firenze): Statistical mechanics and dynamics of solvable models with long-range interactions
- 18:00-18:30 **Politi A.** (Firenze): Stable Chaos

THURSDAY, 30 JULY

Chairmen: Pizzella V., Ebeling W.

Morning Session: 09:00 – 12:30

- 09:00-10:00 **Bezerianos T.** (Patras): In Silico investigation of protein-protein networks Complexity
- 10:00-11:00 **Provata A.** (Athens): Synchronization due to long distance coupling in stochastic, reactive networks
- 11:00-11:30 Coffee Break
- 11:30-12:30 **Nolte G.** (Berlin): Estimating synchronization between different brain regions from EEG/MEG data

Afternoon Session: 15:00 – 18:30

- 15:00-16:00 **Stefani S.** (Milano): CO₂ prices and their dynamics: evidence from the first trading period (2005-2007)
- 16:00-17:00 **Jablovic V.** (Belgrade): The chaotic economic growth model: open economies
- 17:00-17:30 **De Sanctis A.** (Pescara): Information Geometry of regime – switching models
- 17:30-18:00 **Ghikas D.** (Patras) Detection and Analysis of regime – switching models with tools derived from Information Geometry
- 18:00-18:30 Poster Session

FRIDAY, 31 JULY

Chairman: Velarde M.

Morning Session: 9:00 – 13:00

- 09:00-10:00 **Lucheroni C.** (Camerino): Calibration of resonating market models
- 10:00-11:00 **Vespucci M. T.** (Bergamo): A MILP model for the medium-term resource scheduling problem of a large dimension power producer
- 11:00-11:30 Coffee Break
- 11:30-12:00 **Leontitsis A.** (Ioannina): Modeling electricity prices: A data driven approach
- 12,00-12:30 **Tondini D.** (Teramo): Regime switches induced by supply-demand equilibrium: a model for power prices dynamics
- 12:30-13:00 **Conclusion**
- 16:00-17:00 Meeting of the International Center for Nonlinear Dynamics and Complex Systems
