

# 3<sup>rd</sup> NEXT $\Sigma \Phi$

International Conference  
13-18 August 2005  
Orthodox Academy of Crete  
Kolymbari - Greece

## News, Expectations and Trends in ΣΤΑΤΙΣΤΙΚΗ ΦΥΣΙΚΗ

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### TOPICS

Boltzmann statistical mechanics, generalized entropies and distributions in statistical physics and information theory. Generalized statistical mechanics and thermodynamics, nonextensive theory, kinetic theory, fluctuations, relaxation phenomena, random processes, dynamical systems, chaos, turbulence, long-range interactions and small systems. Information theory, Optimization Techniques, Econophysics, Risk, Networks, Traffic Flows, Biology, Sociology, Seismology, Astrophysics, Particle and Nuclear Physics, Plasma and Condensed Matter.

### FORMAT

The Conference is organized in Sessions dealing with general aspects and fundamental problems of statistical physics.

The Conference includes the following topical workshops:

**Information Theory** (P. Harremoës & F. Topsoe), **Physics of Networks** (B. Tadic), **Physics of Risk & Econophysics** (M. Ausloos), **Stochastic Dynamics** (F. Marchesoni & L. Schimansky-Geier).

### Plenary Speakers

**E.G.D.Cohen** (USA), **D. J. Evans** (Australia), **P. Hanggi** (Germany), **F. Izrailev** (Mexico), **D. Mukamel** (Israel), **G. Parisi** (Italy), **L. Pietronero** (Italy), **H. Takayasu** (Japan), **C. Tsallis** (Brazil, USA).

### Keynote Speakers

**L. Borland** (USA), **T. Dauxois** (France), **S. Flach** (Germany), **S. Galam** (France), **N. Gupte** (India), **J. Naudts** (Belgium), **H. Park** (Korea), **C. Pennetta** (Italy), **A. Plastino** (Argentina), **A. Rapisarda** (Italy), **P. Richmond** (Ireland), **A. Stella** (Italy), **X. Zotos** (Greece).

### Invited Speakers

**T. Arimitsu** (Japan), **C. Beck** (UK), **Z. Burda** (Poland), **P. H. Chavanis** (France), **P. Ditlevsen** (Denmark), **S. N. Dorogovtsev** (Portugal), **A. Erzan** (Turkey), **M. Gallegati** (Italy), **L. Gammaitoni** (Italy), **Z. Gingl** (Hungary), **G. Gonnella** (Italy), **D. H. E. Gross** (Germany), **A. Lawnczak** (Canada), **M. H. Lee** (USA), **N. Macris** (Switzerland), **M. Marsili** (Italy), **G. Morriss** (Australia), **A. Motter** (USA), **P. Quarati** (Italy), **E. Ravasz** (USA), **A. Robledo** (Mexico), **S. Ruffo** (Italy), **S. Solomon** (Israel), **H. Suyari** (Japan), **P. Talkner** (Germany), **S. Thurner** (Austria), **R. Toral** (Spain), **Z. Toroczkai** (USA), **H. Touchette** (Canada), **R. Wijngaarden** (Nederland).

### Tutorial Speakers

**M. Ausloos** (Belgium), **F. Marchesoni** (Italy), **B. Tadic** (Slovenia), **F. Topsoe** (Denmark).

### Proceedings

The conference proceedings will be published as special issues of the *European Physical Journal B* and of the *Physica A*.  
Editors: **G. Kaniadakis**, **A. Carbone**, **M. Lissia**.

[www.polito.it/next-sigmaphi](http://www.polito.it/next-sigmaphi)

