



XIV Arrábida meeting “*Caminhos da Complexidade*”

Statistical dynamics of complex systems

July 1-3, 2013

Statistical mechanics concepts are becoming a powerful tool for the identification of behavioural patterns in complex systems, including Planet Earth models. By providing a link between the detailed microscopic and the aggregated macroscopic properties of a complex system, they capture the emerging information and identify the quasi-stationary evolution of behavioural patterns. An important mathematical discipline in this endeavour is the theory of stochastic processes, which not only describes systems with incomplete information as also, through stochastic representations, provides a tool to compute the behaviour of both random and deterministic systems. The workshop will attempt to cover the state of the art in these domains and explain how the concepts may be experimentally validated on several natural systems.

Invited speakers

- S. Banisch** (University of Bielefeld, Germany)
- F. Bonnetto** (Georgia Tech, USA)
- L. Caffarelli** (University of Texas at Austin, USA)
- E. Carlen** (Rutgers University, USA)
- S. Caprino** (University of Rome Tor Vergata, Italy)
- M. C. Carvalho** (University of Lisbon, Portugal)
- E. Dolera** (University of Pavia, Italy)
- R. Esposito** (University of Rome Tor Vergata, Italy)
- I. Gamba** (University of Texas at Austin, USA)
- C. Liverani** (University of Rome Tor Vergata, Italy)
- R. Marra** (University of Rome Tor Vergata, Italy)
- R. V. Mendes** (Complexity Sciences Institute, Portugal)
- Ph. Morrison** (University of Texas at Austin, USA)
- E. Ben-Naim** (Los Alamos, USA)
- E. Orlandi** (University of Roma Tre, Italy)
- M. J. Oliveira** (Open University, Lisbon Portugal)
- M. Pulvirenti** (University of Rome la Sapienza, Italy)
- A. J. Soares** (University of Minho, Portugal)
- B. Wennberg** (Chalmers Institute, Sweden)

Organizers

- T. Araujo** (ISEG, TU Lisbon, Portugal), **M. C. Carvalho** (U Lisbon, Portugal),
I. Gamba (University of Texas at Austin, USA), **R. V. Mendes** (Complexity Sciences Institute, Portugal)

Sponsors

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