



Fondation Francqui-Stichting

Fondation d'Utilité Publique - Stichting van Openbaar Nut

Complexity and Statistical Mechanics (Rome, Academia Belgica – March 17-18, 2008)

Programme

Monday March 17, 2008

- 9:10-9:20 Barones **Janine Delruelle**, Board Member of the Francqui Foundation
9:20-9:30 **Walter Geerts**, Director of the Academia Belgica
9:30-10:20 **Grégoire Nicolis** "*Nonlinear dynamics and self-organization in the presence of metastable phases*"
10:20- 11:10 **Antonio Politi** "*Covariant Lyapunov vectors as a tool to probe chaotic dynamics*"

Break

- 11:30-12:20 **Giovanni Jona-Lasinio** "*Towards nonequilibrium thermodynamics : a phenomenological theory of diffusion processes*"

Break

- 14:30-15:20 **Giovanni Gallavotti** "*Chaos and coarse graining*"
15:20-16:10 Angelo Vulpiani "*On the relevance of coarse-graining in chaotic and non-chaotic systems*"

Break

- 16:40-17:30 **Bernard Derrida** "*Current fluctuations in non-equilibrium systems*"
17:30-18:20 **Alberto Imparato** "*Work and heat probability distribution of a driven Brownian particle*"

Tuesday March 18, 2008

- 9:30-10:20 **Jean Bricmont** "*On a mechanical derivation of Fourier's law*"
10:20-11:10 **Thomas Gilbert** "*Heat conduction and Fourier law in weakly interacting many particle dispersing billiards*"

Break

- 11:30-12:20 **Giulio Casati** "*Classical and quantum chaos and understanding and control of heat flow*"

Break

- 14:30-15:20 **Luciano Pietronero** "*Self-organization and stylized facts in agent based models for economics*"
15:20-16:10 **Stefano Ruffo** "*Systems with long-range interactions*"

Break

- 16:40-17:30 **Francesco Sylos Labini** "*Complex structures in self-gravitating systems and in galaxy distributions*"

17:30-18:20 **Pierre Gaspard** *"Time asymmetry and the complexification of matter under nonequilibrium conditions"*