



# Fondation Francqui-Stichting

Fondation d'Utilité Publique - Stichting van Openbaar Nut

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

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### *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"*