

Scientific report

The meeting **Stochastic Thermodynamics from its origins to today: A celebration of Christian Van den Broeck's 60th birthday** which took place at the University of Luxembourg on February 28, 2014 has been very successful and reached its stated objective. Nine speakers presented their recent work on a large diversity of topics within the field of stochastic thermodynamics (see the schedule below). Each speaker also emphasized in which way the work of Christian Van den Broeck influenced their work. Many interesting discussions ensued concerning the progress done in the field of nonequilibrium thermodynamics and on the new promising research directions for the future. Christian Van den Broeck expressed his great gratitude to the organizer and to the speakers of this meeting celebrating his 60th birthday. Finally, the meeting also attracted many local members and students from the Physics and Material Sciences Research Unit which have openly expressed their satisfaction.

Massimiliano Esposito

Conference website: <https://sites.google.com/site/stochthermochris60thbirsday/>

Schedule:

9h00-9h15: Welcome by Massimiliano Esposito

9h15-9h45: Irreversible thermodynamics of open chemical networks by Matteo Poletini

9h45 - 10h30: Stochastic thermodynamics: The many faces of efficiency at maximum power by Udo Seifert

COFFEE BREAK

10h45-11h30: Level 2 large deviation functional for stochastic systems by Andreas Engel

11h30-12h15: Diffusing towards diversity by Bart Cleuren

LUNCH

14h15-15h00: Quantum measurement and fluctuation theorems by Juan Manuel Rodríguez Parrondo

15h00-15h45: Synchronization of Stochastic Neuronal Networks by Lutz Schimansky-Geier

15h45-16h30: Thermalization of isolated macroscopic quantum systems: modeling the preparation effects by Peter Reimann

COFFEE BREAK

16h45-17h30: 25 years of Stochastic Thermodynamics with C. Van den Broeck by Ryoichi Kawai

17h30-18h15: Fluctuation theorem for generalized kangaroo processes by Raul Toral

Closing remarks by Chris Van den Broeck

20h00 DINNER at Restaurant Lux-E-Cosi (<http://www.lux-e.lu/>).

Invited Speakers:

Bart Cleuren, University of Hasselt

Andreas Engel, University of Oldenburg

Massimiliano Esposito, University of Luxembourg

Ryoichi Kawai, University of Alabama at Birmingham

Juan Manuel Rodríguez Parrondo, Complutense University of Madrid

Peter Reimann, University of Bielefeld

Lutz Schimansky-Geier, Humboldt-University of Berlin

Udo Seifert, University of Stuttgart

Raúl Toral, University of Palma de Mallorca