

University of California, San Diego  
Department of Chemistry & Biochemistry

and

National Science Foundation  
European Science Foundation  
"Exploring the Physics of Small Devices"  
Katja Lindenberg and Christian Van den Broeck

Presents:

# Small Matters

Monday, July 23, 2012

8:30 am – 6:30 pm

Harold & Frieda Urey Room  
Urey Hall Building, Room 2102

## Small Matters - Program

<b>8:30 – 9:00</b>	<b>Continental Breakfast</b>	<b>12:50 – 2:30</b>	<b>Lunch Break</b>
<b>9:00 – 9:10</b>	<b>Opening Remarks</b> Katja Lindenberg (UCSD) Chris Van den Broeck (Uhasselt)	<b>2:30 – 3:20</b>	Massimiliano Esposito (Universite du Luxembourg) <i>Stochastic thermodynamics: Engines and demons</i>
<b>9:10 – 10:00</b>	Micha Galperin (UCSD) <i>Molecular junctions: A nonequilibrium atomic limit</i>	<b>3:20 – 4:10</b>	Peter Salamon (San Diego State University) <i>Finite time thermodynamics</i>
<b>10:00 – 10:50</b>	Misha Rabinovich (UCSD) <i>Dynamical modeling of cognition: How to build a cognitive device</i>	<b>4:10 – 4:30</b>	<b>Coffee Break</b>
<b>10:50 – 11:10</b>	<b>Coffee Break</b>	<b>4:30 – 5:20</b>	Tony Bell (UC Berkeley) <i>Learning out of equilibrium, or "can we train the Master Equation?"</i>
<b>11:10 – 12:00</b>	Raul Toral (Universitat Illes Balears) <i>A master equation approach to fluctuations on heterogeneous and delayed systems</i>	<b>5:20 – 6:20</b>	Lev Tsimring (UCSD) <i>Oscillatory dynamics of synthetic gene networks</i>
<b>12:00 – 12:50</b>	Jose-Maria Sancho (Universitat de Barcelona) <i>Theoretical analysis of a simple reversible molecular motor-turbine</i>	<b>6:20 – 6:25</b>	<b>Closing Remarks</b> – Katja Lindenberg

