



Château d'Orsay

WORKSHOP

Charge and heat dynamics in nano-systems

October 10-12, 2011, LPS Orsay

◆ ORGANIZING COMMITTEE

C. BENA - LPS Orsay
A. CRÉPIEUX - CPT Marseille

◆ SCIENTIFIC COMMITTEE

M. GOFFMAN - CEA Saclay
F. HEKKING - LPMCM Grenoble
F. MICHELINI - IM2NP Marseille
I. SAFI - LPS Orsay

◆ FUNDED BY

ERC Starting Independent Researcher Grant 256965 NANO-GRAPHENE
PEPS Physique Théorique et ses Interfaces, CNRS

PROGRAM

SESSION 1: DYNAMICS AND NOISE IN NANO-SYSTEMS I

October, Monday the 10th - Chairman: I. SAFI

14h	C. GLATTLI	Photon assisted shot noise and current
14h30	E. SUKHORUKOV	Energy relaxation at the quantum Hall edge
15h	P. DEGIOVANNI	Quantum tomography of single electron excitations in quantum Hall edge channels
15h30	<i>Coffee break + Poster session</i>	
16h30	M. BUTTIKER	Distributions of waiting times of dynamic single-electron emitters
17h	E. BOCQUILLON	Intensity correlations of a single electron beam
17h30	T. JONCKHEERE	Effect of many-body correlations on mesoscopic charge relaxation

SESSION 2: ONE-DIMENSIONAL SYSTEMS

October, Tuesday the 11th - Chairman: F. HEKKING

9h	P. JOYEZ	Andreev bound states and the Kondo effect in carbon nanotubes
9h30	A. LEVY YEYATI	Cooper pair splitting based on carbon nanotubes
10h	R. LOPEZ	Josephson current in carbon nanotubes with spin orbit interaction
10h30	<i>Coffee break</i>	
11h	H. PERRIN	Confining ultracold atoms on a ring in reduced dimensions
11h30	A. MINGUZZI	Strongly interacting ultracold atomic gases on a 1D ring
12h	J.-S. CAUX	1D quantum dynamics beyond the low-energy approximation

SESSION 3: DYNAMICS AND NOISE IN NANO-SYSTEMS II

October, Tuesday the 11th – Chairman: M. GOFFMAN

14h	K. LE HUR	Fluctuations and full counting statistics as probe of entanglement entropy
14h30	R. DEBLOCK	Quantum noise measurement of a carbon nanotube quantum dot in the Kondo regime
15h	P. SIMON	Non-equilibrium frequency-dependent noise through a quantum dot: A real time functional renormalization group approach
15h30	M. FERRIER	Probing the dynamics of Andreev states in a coherent Normal/Superconducting ring
16h	<i>Coffee break + Poster session</i>	
17h	A. ZAIKIN	Shot noise and Coulomb effects on non-local electron transport in NSN heterstructure
17h30	F. PIERRE	Strong back-action of a linear circuit on a single electronic quantum channel
18h	F. PORTIER	The bright side of Coulomb blockade

SESSION 4: HEAT TRANSFER AT THE NANOSCALE

October, Wednesday the 12th – Chairman: F. MICHELINI

9h	A. BIEHS	Radiative heat transfer at the nanoscale
9h30	D. NOZAKI	Engineering the figure of merit and thermopower in single-molecule devices connected to semiconducting electrodes
10h	M. MUNZENBERG	Magneto-Seebeck effect in magnetic tunnel junctions
10h30	<i>Coffee break</i>	
11h	L. PASCAL	Circuit approach to photonic heat transport
11h30	J.-T. LU	Heat transfer in molecular conductors due to Joule heating and current-induced force
12h	S. MERABIA	Thermal transport of molecular junctions