

Conference Programme

MONDAY, July 16 2007

8:00 am - 9:00 am	Registration		
9:00 am - 9:40 am	John Cardy	University of Oxford UK	Quantum Quenches in Extended Systems
9:45 am - 10:25 am	Sergey Bravyi	IBM Watson Research Center USA	Statistical physics and quantum computation
10:30 am - 10:45 am	Coffee Break		
10:45 am - 11:25 am	Vladimir Korepin	Stony Brook USA	Entanglement in Spin Chains
11:30 am - 12:10 pm	Pasquale Calabrese	Università di Pisa Italy	Entanglement entropy and quantum field theory
12:15 pm - 3:30 pm	Lunch Break		
3:30 pm - 4:10 pm	Eduardo Fradkin	University of Illinois Urbana-Champaign USA	Entanglement Entropy at two dimensional quantum critical points and topological phases: can you hear the shape of Schrödinger's cat?
4:15 pm - 4:55 pm	Luigi Amico	Università di Catania Italy	Entanglement in Spin Chains
5:00 pm - 5:15 pm	Coffee Break		
5:15 pm - 5:55 pm	Paul Fendley	University of Virginia USA	Topological entanglement entropy and the holographic partition function
6:00 pm - 6:40 pm	Gordon Semenoff	University of British Columbia Canada	Stretched states from Majorana modes

TUESDAY, July 17 2007

9:00 am - 9:40 am	Ian Affleck	University of British Columbia Canada	The Kondo screening cloud: what it is and how to measure it in mesoscopic devices
9:45 am - 10:25 am	Reinhold Egger	Heinrich-Heine- Universität Düsseldorf Germany	Interaction effects in quantum point contacts and quantum wires
10:30 am - 10:45 am	Coffee Break		
10:45 am - 11:25 am	Andreas Ludwig	University of California Santa Barbara USA	Boundary Critical Behavior and Multifractality at Anderson (De-)Localization Transitions
11:30 am - 12:00 pm	Domenico Giuliano	Università della Calabria Italy	Boundary Field theories of SQUID devices
12:05 pm - 12:35 pm	Pascal Degiovanni	ENS Lyon Boston University	Mesoscopic devices for cavity QED: from quantum optics to quantum impurity problems
12:40 pm - 3:30 pm	Lunch Break		
3:30 pm - 4:10 pm	Benoit Douçot	Universités Paris 6 et 7, C.N.R.S. France	Physical implementation of protected qubits
4:15 pm - 4:55 pm	So-Young Pi	Boston University USA	Topological Mass Generation in Four Dimensions
5:00 pm - 5:40 pm	German Sierra	Universidad Autónoma de Madrid Spain	Superconductivity and the Riemann zeros
5:45 pm - 6:00 pm	Coffee Break		
6:00 pm - 6:40 pm	Chetan Nayak	University of California Los Angeles USA	Physics of the 5/2 quantum Hall State
6:45 pm - 7:25 pm	Roderich Moessner	University of Oxford UK	Artificial square ice and related dipolar nanoarrays
8 :00 p m	Social Dinner		

WEDNESDAY, July 18 2007

9:00 am - 9:40 am	Chiara Fort	LENS Firenze Italy	Experiments with ultracold atoms in a bichromatic optical lattice: searching for disorder induced effects
9:45 am - 10:25 am	Palo Silvestrini	Seconda Università di Napoli Italy	TBA
10:30 am - 10:50 am	Andrea Trombettoni	SISSA Italy	Josephson devices with cold atoms
10:55 am - 11:10 am	Coffee Break		
11:10 am - 11:50 am	Mario Rasetti	Politecnico di Torino Italy	Topological quantum computation as a tool for Topology
11:55 am - 12:35 pm	Lachezar Georgiev	INRNE Sofia Bulgaria	Topological Quantum Computation with non-Abelian anyons in the Pfaffian quantum Hall state
12:40 pm - 3:00 pm	Lunch Break		
3:00 pm - 3:40 pm	Roman Jackiw	MIT Boston USA	Topology and Fractional Charge in Polyacetylene and Graphene
3:45 pm - 4:25 pm	Claudio Chamon	Boston University USA	Electron Fractionalization in 2D via Spontaneous Symmetry Breaking in Graphene-like Structures
4:30 pm - 4:50 pm	Alessandro De Martino	Heinrich-Heine-Universität Düsseldorf Germany	Magnetic confinement of massless Dirac fermions in graphene
4:55 pm - 5:10 pm	Coffee Break		
5:10 pm - 5:50 pm	Dmitri Khveshchenko	INRNE Sofia Bulgaria	Coulomb Interacting Dirac Fermions in Disordered Graphene
5:55 pm - 6:35 pm	Mahito Kohmoto	University of Tokyo Japan	Jahn-Teller theorem, quantized flux and monopole confinement of the honeycomb lattice
6:40 pm - 7:20 pm	Boris Altshuler	Columbia University USA	P-N junctions and Random Resistor Network in Graphene
7 : 3 0 p m	Poster Session		

THURSDAY, July 19 2007

9:00 am - 9:40 am	Mikhail Zvonarev	Université de Genève Switzerland	Dynamics of spin waves in one-dimensional spinor Bose gas
9:45 am - 10:25 am	José Ignacio Latorre	Universitat de Barcelona Spain	Quantum Information and the simulation of quantum systems
10:30 am - 10:45 am	Coffee Break		
10:50 am - 11:30 am	Sankar Das Sarma	University of Maryland USA	Non Abelian anyons and topological quantum computation
11:35 am - 12:15 pm	David Campbell	Boston University USA	Intrinsic Localized Modes: Localizing Energy Through Nonlinearity and Discreteness
12:20 pm - 1:00 pm	Conclusions		
1:00 p m	Lunch		