

The 5th Windsor Summer School on Condensed Matter Theory

Quantum Phenomena in Low-Dimensional Materials and Nanostructures



Great Park, Windsor, UK, August 9-21, 2010

www.lancs.ac.uk/depts/esqn/windsor10

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I²CAM
International Institute for Complex Adaptive Matter



Programme

Boris Altshuler (Columbia U, NY)	<i>Fundamental of mesoscopic physics</i>
Eva Andrei (Rutgers)	<i>Fractional quantum Hall effect in graphene</i>
Natan Andrei (Rutgers)	<i>Kondo physics.</i>
Vadim Cheianov (Lancaster)	<i>Bosonisation and correlations in one dimensional systems and edge states.</i>
Nigel Cooper (Cambridge)	<i>Abelian and non-Abelian quantum Hall effect systems</i>
Atsushi Fujimori (Tokyo)	<i>Heterostructures of transition metal oxides.</i>
Vladimir Falco (Lancaster)	<i>Electronic properties of graphene.</i>
Andre Geim (Manchester)	<i>All you wanted to know about graphene.</i>
Steven Girvin (Yale)	<i>Circuit QED: Physics of microwave photons and superconducting qubits.</i>
Charles Kane (U Penn)	<i>Topological insulators.</i>
Jorg Kotthaus (Munich)	<i>Nanomechanical systems - experiment.</i>
Peter Littlewood (Cambridge)	<i>Heterostructures of transition metal oxides – theory.</i>
Daniel Loss (Basel)	<i>Physics of spin qubits.</i>
Florian Marquardt (Munich)	<i>Quantum nanomechanics.</i>
Walter Metzner (MPI Stuttgart)	<i>Functional renormalization group for interacting electrons.</i>
Subir Sachdev (Harvard)	<i>Quantum phase transitions of metals.</i>
Jorg Schmalian (Ames Lab / Royal Holloway)	<i>Superconductivity, old and new.</i>
Maurice Skolnik (Sheffield)	<i>Quantum control with quantum dots.</i>
Marzena Szymanska (Warwick)	<i>Polaritons condensation.</i>

Timetable

Week 1 (9-15 August, 2010)

	9 Mon	10 Tue	11 Wed	12 Thu	13 Fri	14 Sat	15
7:45		breakfast	breakfast	breakfast	breakfast	breakfast	br.
9:00	Minibuses from Heathrow	Kane 1	Girvin 1	Departure to Harvell Centre at 8:45; tour of facilities Lunch (12:30-13:30) Kane review (13:30-14:30) Diamond talks (14:30- 16:30) Coffee 16:30	Metzner 2	Cooper 1	Windsor-Eton Tour
10:00		Kane 2	Girvin 2		Metzner 3	Cooper 2	
11:00	Registr.	coffee	coffee		coffee	coffee	
11:30		Loss 1	Kane 3		Girvin 3	Geim 1	
13:00	lunch	lunch	lunch		lunch	lunch	
14:30	Minibuses from Heathrow	Loss 2	Metzner 1	Kotthaus 1	Geim 2		
15:30		Skolnick 1	Szymanska 1	Kotthaus 2	Coffee 16:00		
16:30	Registr.	coffee	coffee	coffee	Poster Talks 1		
17:00	welcome reception	Skolnick 2	Szymanska 2	Departure to CL	Falko 1		
18:15	dinner	dinner	dinner	dinner	dinner	dinner	
19:30		discussions	discussions	discussions	discussions	Posters 1	

Week 2 (16-21 August, 2010)

	16 Mon	17 Tue	18 Wed	19 Thu	20 Fri	21
7:45	breakf.	breakf.	breakf.	breakf.	breakf.	Departure
9:00	N Andrei 1	Sachdev 1	N Andrei 3	Sachdev 3	Cheianov 2	
10:00	N Andrei 2	Sachdev 2	N Andrei 4	Sachdev 4	Cheianov 3	
11:00	coffee	coffee	coffee	coffee	coffee	
11:30	Marquardt 1	Fujimori 1	Eva Andrei 1	Altshuler 1	Schmalian 3	
13:00	lunch	lunch	lunch	lunch	lunch	
14:30	Marquardt 2	Fujimori 2	Eva Andrei 2	Schmalian 1	Altshuler 2	
15:30	Falko 2	coffee 16:00	Littlewood 1	Schmalian 2	Altshuler 3	
16:30	coffee	Poster Talks 2	coffee	coffee	closing	
17:00	Falko 3		Littlewood 2	Cheianov 1	farewell reception & dinner	
18:15	dinner	dinner	Conference dinner	dinner		
19:30	discussions	Posters 2	dinner	discussions		