

Many body quantum optics and correlated states of light

Monday 28 - Tuesday 29 October 2013

Organised by Dr Jonathan Keeling, Professor Steven Girvin, Dr Michael Hartmann and Professor Peter Littlewood FRS

DAY 1				DAY 2			
SESSION 1		SESSION 2		SESSION 3		SESSION 4	
08.50	Welcome by The Royal Society & lead organiser	14.10	Hui Deng Quantum correlations of light in single, few, and many-body systems	09.00	Mikhail Lukin Strongly interacting photons in quantum nonlinear medium	14.30	Jens Koch Quantum phases and nonequilibrium dynamics in circuit QED lattices
09.00	Andrew Houck Many body quantum optics with superconducting cavity arrays						
09.30	Discussion	14.40	Discussion	09.30	Discussion	15.00	Discussion
09.40	Hakan Tureci Many body physics with coupled light-matter systems	14.50	Iacopo Carusotto Towards quantum hall liquids of light	09.40	Rosario Fazio Solid phases in driven non-linearly coupled cavities	15.10	Andrew Cleland Coupling electronics, mechanics and light
10.10	Discussion	15.20	Discussion	10.10	Discussion	15.40	Discussion
		15.30	Tea				
10.20	Arno Rauschenbeutel Preparing and manipulating quantum states of light and matter with atoms trapped around an optical nanofiber	16.00	Jacqueline Bloch Bose condensates in microstructured semiconductor cavities: interactions, propagation and localization	10.20	Ed Hinds Coupling light to atoms and molecules on a chip	15.50	Steven Girvin Quantum control toolbox and bath engineering in the strong-dispersive limit of circuit QED
10.50	Discussion	16.30	Discussion	10.50	Discussion	16.20	Discussion
11.00	Coffee			11.00	Coffee	16.30	Tea and Departure
11.30	Martin Plenio Quantum many body phononics in ion traps	16.40	Ataç Imamoğlu Strongly interacting photons in semiconductor nanostructures	11.40	Timothy Spiller Cool for cats		
12.00	Discussion	17.10	Discussion	12.10	Discussion		
12.10	Tilman Esslinger Synthetic quantum many-body systems	17.20	Jacob Taylor Hybrid quantum devices for optical many-body systems	12.20	Andreas Wallraff Waveguide QED with an ensemble of two-level systems		
12.40	Discussion	17.50	Discussion	12.50	Discussion		
12.50	Lunch	18.00	Posters and Drinks	13.00	Lunch		
		19.30	Dinner				