

Solid State Quantum Photonics, Sheffield 2016

Workshop schedule		
WELCOME		
9:00 – 9:55	Registration, coffee, posters & exhibition	
9:55 – 10:00	Opening remarks	
SESSION 1		
10:00 – 10:30	David Gershoni (Technion, Haifa)	Quantum dots – deterministic sources for long strings of entangled photons and photonic cluster states
10:30 – 10:45	Rob Stockill (Univ. of Cambridge)	Intrinsic limit to electron spin coherence in InGaAs quantum dots featuring strain-induced nuclear dispersion
10:45 – 11:00	Tim Kaldewey (Univ. of Basel)	Deterministic creation of a biexciton in a self-assembled quantum dot
11:00 – 11:15	Ahsan Nazir (Univ. of Manchester)	Quantum correlations of light and matter through environmental transitions
11:15 – 11:30	Christian Schneider (Univ. of Wuerzburg)	Bright, indistinguishable resonance fluorescence photons from a deterministically aligned quantum dot- micropillar cavity
11:30 – 11:45	Alex Clark (Imperial, London)	Organic dye molecules for quantum photonic applications
LUNCH BREAK		
11:45 – 14:05	Posters, exhibition & discussions. Lunch will be served from 12:30	
SESSION 2		
14:05 – 14:35	Ruth Oulton (Univ. of Bristol)	Polarization Engineering in Photonic Crystal Waveguides for Spin-Photon Entanglers
14:35 – 14:50	Rikki Coles (Univ. of Sheffield)	Chirality in Nanophotonic Waveguides with Embedded Quantum Emitters
14:50 – 15:05	Fabrice Laussy (Univ. of Madrid)	Cascaded Single Photon Sources
15:05 – 15:20	Baolai Liang (California Nano Systems Institute)	Development of InAs/AlAsSb/InP self-assembled quantum dots for intermediate-band solar cells
15:20 – 15:40	COFFEE BREAK	
SESSION 3		
15:40 – 16:10	Marek Potemski (CNRS, Grenoble)	Optics of 2D materials
16:10 – 16:25	Brian Gerardot (Heriot Watt, Edinburgh)	Resonant laser spectroscopy of localized bright and dark excitons in monolayer WSe ₂
16:25 – 16:40	Carmen Berraquero (Univ. of Cambridge)	Atomically-thin quantum light emitting diodes
16:40 – 16:55	Philip Dolan (Univ. of Oxford)	Room temperature spectral enhancement of a single NV centre by controllable coupling to multiple open access microcavities
16:55 – 17:10	James Lee (Toshiba Cambridge)	Cavity enhanced resonant excitation of a quantum dot
CLOSING		
17:10 – 17:15	Closing remarks	

Poster presentations (list ordered by surname)

Corresponding author	Affiliation	Contribution title
Ahumada-Lazo Ruben	Manchester	Optical stability and oxidation in halide-passivated PbS quantum dots exposed to ambient conditions.
Androvitsaneas Petros	Bristol	A charged quantum dot micropillar system for deterministic light matter interactions
Cao Yameng	Lancaster	Quantum Decoherence of Spin Qubits in Quantum Dots
Chekhovich Evgeny	Sheffield	Few-second-long correlation times in a quantum dot nuclear spin bath probed by frequency-comb NMR spectroscopy
Christopher Woodhead	Lancaster	High resolution photoluminescence from two dimensional materials
Clark Philippa	Manchester	Halide Treated PbS/CdS core/shell Colloidal Quantum Dots studied with Synchrotron Radiation and laboratory source excited X-ray Photoelectron Spectroscopy
Dada Adetunmise	Heriot Watt	Flexibly-triggered resonance fluorescence from a semiconductor quantum dot
Gaio Michele	King's College	Modal coupling of single quantum dots within nanofibre waveguides
Ibrahim Mohammed	Hull	Narrow-band green photoconductivity from defect in ZnO nanoparticles
Iles-Smith Jake	TU Denmark	Fundamental limitations to photon coherence properties from a driven Quantum Dot
Jevtics Dimitars	Strathclyde	Transfer Printing of Semiconductor Nanowires with Lasing Emission for Controllable Nanophotonic Device Fabrication
Johnson Sam	Oxford	Tunable cavity coupling to the zero phonon line of a nitrogen-vacancy defect in diamond
Kaczmarczyk Artur	Heriot Watt	Discrete quantum dot like emitters in monolayer MoSe ₂ : Spatial mapping, Magneto-optics and Charge tuning.
Kime Georgia	Manchester	Charge dynamics in two-dimensional MoS ₂ produced by ultrasonication
Lang Ben	Bristol	Directionality of quantum dot emission will be best achieved away from the slow light regime
Leontiadou, Marina	Manchester	Ultrafast Exciton Dynamics in Cadmium Mercury Telluride alloy Quantum Dots
Levi Elliott	St Andrews	Spin ladders as channels for entanglement distribution between NV centres
Liu Feng	Sheffield	Ultrafast depopulation of a quantum dot by LA-phonon assisted stimulated emission
Malein Ralph	Heriot Watt	Spectroscopic characterization of the effect of nuclear spin fluctuations on electrons and holes in self-assembled InGaAs quantum dots
Moro Fabrizio	Nottingham	Electron spin coherence near room temperature in magnetic quantum dots
Noori Yasir	Lancaster	Pillar-based photonic crystals for light extraction from 2D materials
Nur Salahuddin	UCL	Design and fabrication of photonic structures for enhanced emission and optical detection of donor spin states in silicon
Nuttall Luke	Oxford	Deterministic Optical Fabrication of Photonic Crystal Microcavities
Ohara John	Sheffield	On-chip interference of single photons from an embedded quantum dot and a laser
Rahman Anis	UCL	Towards a mesoscopic quantum superposition using a single NV-centre in a diamond nanoparticle
Rashid Marzaini	Newcastle	DFT Study on the Effect of -H, -OH and -F Surface Terminations Upon Optical Absorption Onset of 4H-SiC Quantum Dots
Scarpelli Lorenzo	Cardiff	Exciton dephasing and decay in two-dimensional MoSe ₂ layers
Schwarz Stefan	Sheffield	Electrically pumped quantum emitters in van der Waals heterostructures
Sherkunov Yury	Manchester	Rabi oscillations of two-photon states in nonlinear optical resonators
Skrypka Oleksandr	Sheffield	Indirect excitons in monolayer transition metal dichalcogenide heterostructures

Smith Charles	Manchester	Ultrafast Charge Dynamics in Trap-Free and Surface-Trapping Colloidal Quantum Dots
Stanley Megan	Cambridge	Quantum correlations between two distant electron spins
Ulhaq Ata	Sheffield	Vanishing electron g-factor and long lived nuclear spin polarization in nanohole-filled GaAs/AlGaAs quantum dots
Wang Tong	Oxford	Generation of linearly polarised photons at 160K and high temperature characteristics from single non-polar (11-20) InGaN quantum dots in nanopillars
Wilson Luke	Sheffield	Electrically driven nanophotonic circuits: Electroluminescence from waveguide-coupled single quantum dots