

Quantum Dot Day 2018 – 24th January 2018, Sheffield

Workshop Programme

09:00 – 09:55 **Registration, posters, exhibition and coffee**

09:55 – 10:00 **Opening remarks**

SESSION 1

10:00 – 10:30	Richard Warburton <i>(Universität Basel)</i>	Resonant driving of a single quantum dot embedded in a mechanical oscillator
10:30 – 10:45	Dominic Hallett <i>(Univ. of Sheffield)</i>	Electrical control of a quantum non-linearity in a nano-photonic waveguide
10:45 – 11:00	James Lee <i>(Toshiba, Cambridge)</i>	Time-bin encoded photonic states from a quantum dot
11:00 – 11:15	Gabriel Ethier-Majcher <i>(Univ. of Cambridge)</i>	Improving a solid-state qubit through an engineered mesoscopic environment
11:15 – 11:30	Jake Iles-Smith <i>(DTU Fotonik)</i>	Probing electron-phonon interactions through two-photon interference in resonantly driven semiconductor quantum dots
11:30 – 11:45	Miguel Leitão <i>(Univ. of Strathclyde)</i>	Colour-conversion dynamics of a CsPbBr₃/Cs₄PbBr₆ luminescent nanocomposite
11:45 – 12:00	Ruben Ahumada-Lazo <i>(Univ. of Manchester)</i>	Ultrafast charge transfer in quinone functionalised CdTe/CdS quantum dots for biosensing applications

12:00 – 13:50 **LUNCH BREAK**
Poster session and exhibition. Lunch will be served from 12:30

SESSION 2

13:50 – 14:20	Stephan Reitzenstein <i>(TU Berlin)</i>	Non-classical light emission of deterministically fabricated quantum dot – microlenses
14:20 – 14:35	Dan Cogan <i>(Technion, Haifa)</i>	The dynamics of electronic spin qubits confined in quantum dots
14:35 – 14:50	Stefano Moroni <i>(Univ. College Cork)</i>	Pyramidal quantum dots: electrical injection, wavelength tuning and manipulation of single pyramids
14:50 – 15:05	Mingchu Tang <i>(UCL, London)</i>	InAs/GaAs quantum dot lasers monolithically grown on Si substrates
15:05 – 15:20	Edward Laird <i>(Univ. of Oxford)</i>	Spin and valley transport through carbon nanotube double quantum dots

15:20 – 15:45 **COFFEE BREAK**

SESSION 3

15:45 – 16:15	Ruth Oulton <i>(Univ. of Bristol)</i>	Quantum dots for quantum switching and quantum networks
16:15 – 16:30	Tina Muller <i>(Toshiba, Cambridge)</i>	A quantum light emitting diode for the standard telecom window around 1550nm
16:30 – 16:45	Lorenzo Scarpelli <i>(Cardiff University)</i>	High beta factors and directional coupling of InAs/GaAs quantum dots to photonic crystal waveguides determined by direct spectral imaging
16:45 – 17:00	Zofia Bishop <i>(Univ. of Sheffield)</i>	On-chip electro-mechanical routing of single photons from an embedded quantum emitter

Poster Presentations				
P1	Ruben	Ahumada-Lazo	Manchester	Nano-cathodoluminescence and photoluminescence of perovskite nanocrystals
P2	Jonathan	Bodey	Cambridge	Coherent Raman manipulation of a single hole spin
P3	Emil	Denning	TU Denmark	Dephasing resilient protocol for the generation of multi-photon entangled states
P4	Janna	Hinchliff	Bristol	Nuclear spin quantum memory in quantum dots
P5	David	Hurst	Sheffield	Few photon scattering in waveguide QED
P6	Lukas	Huthmacher	Cambridge	Coherence of a dynamically decoupled quantum-dot hole spin
P7	Andrey	Krysa	Sheffield	MOVPE growth of InAs QDs on InP for single photon emitters and laser applications
P8	Constantin	Lang	Cambridge	Coherent manipulation of the nuclear spin states of an InGaAs quantum dot in Voigt geometry
P9	Joseph	Lennon	Bristol	A flexible, FPGA-based device for measurement and control in quantum dot systems
P10	Francesco	Masia	Cardiff	Disentangling spectral diffusion and blinking from intrinsic line-shapes in single QD photoluminescence by non-negative matrix factorization
P11	Matthew	Parker	Bristol	Confined Tamm plasmon cavities for telecom wavelength quantum dot devices
P12	Catherine	Phillips	Sheffield	Influence of excitation pulse parameters on a single photon source with very short radiative lifetime
P13	Gautham	Ragunathan	Sheffield	Direct probing and manipulation of the nuclear spins in individual II-VI CdTe/ZnTe quantum dots
P14	Dale	Scerri	Edinburgh	Hole-spin mediated multi-photon frequency entanglement scheme
P15	Ross	Schofield	Imperial	Room temperature photon generation efficiency from a single molecule
P16	Abiral	Tamang	Leeds	CdTe/CdS quantum dots for redox sensing in live cells
P17	Yutian	Wen	Oxford	Self-driven mechanical oscillations of a suspended carbon nanotube quantum dot
P18	Panaiot	Zotev	Sheffield	Localized excitons emission from WSe₂ strain-induced defects on GaP nanoantennas

Updated: 12/01/2018