

Time	Given Name	Family Name	Topic	Primary Marker	Independent Marker	Chair
Date 18/04/2017						
1000	Niamh	Turner	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	David McKee	Neil Hunt
1045	Yu	Zhang	Hairpin DNA-functionalized gold nanorods for mRNA detection in homogenous solution	Yu Chen	David McKee	Neil Hunt
1130	Jonathon	Massey	Spectroscopic Studies of Melanin Fibrils; Spectra, Kinetics, Modulators	Jens Sutter	Gail McConnell	Neil Hunt
1215	Kevin Graham	McKechnie	Spectroscopic Studies of Dye Aggregation	Jens Sutter	Gail McConnell	Neil Hunt
1400	Daniel David	McColl	Quantification and measurement of marine microbial populations using the Mesolens	Gail McConnell	David McKee	Francesco Papoff
1445	Rachel	MacPhee	Super-wide field of view two dimensional cell imaging	Gail McConnell	David McKee	Francesco Papoff
1530	Callum	Kinnoch	Automated Image Analysis in Single-Molecule Localization Microscopy	Sebastian van de Linde	Yu Chen	Francesco Papoff
1615						
Date 19/04/2017						
1000						
1045	Marie	Clifford	UV Laser diodes: pushing the boundary	Rob Martin	Thomas Han	Carol Trager-Cowan
1130	Simon	Lawrence	Colour properties and efficiency of white LEDs	Rob Martin	Thomas Han	Carol Trager-Cowan
1215	Jennifer Lynn	Service	Investigating non-ideal behaviour in current-voltage curves from GaN-based LEDs	Rob Martin	Thomas Han	Carol Trager-Cowan
1400	David	Harper	Optical spectroscopy of distant sources	Carol Trager-Cowan	Nick Lockerbie	Kevin O'Donnell
1445	Joel	Scheffer	Doping profile measurements in silicon p-n junctions via capacitance-voltage measurements	Carol Trager-Cowan	Paul Edwards	Kevin O'Donnell
1530	Mike	Gyurik	Energy upconversion in nano-crystallites for application in ultra-high definition display technology	Thomas Han	Yu Chen	Kevin O'Donnell
1615	Ryan	Thomson	Lanthanide-doped fluoride sub-micron crystalline particles for biomedical applications	Thomas Han	Yu Chen	Kevin O'Donnell
Date 20/04/2017						
1000	Douglas	Cameron	Hysteretic Photochromic Switching (HPS) of europium-magnesium (Eu-Mg) defects in GaN	Kevin O'Donnell	Olaf Rolinski	Ben Hourahine
1045	Daniel	Dyer	RE-doped III-nitrides for solid state lighting applications	Kevin O'Donnell	Olaf Rolinski	Ben Hourahine
1130	Michael	Farnham	Phosphorescence of glowstones™	Paul Edwards	Olaf Rolinski	Ben Hourahine
1215	Paul Anthony	Ross	Modelling of X-ray fluorescence spectroscopy	Paul Edwards	Olaf Rolinski	Ben Hourahine
1400	Ruairidh	McArthur	Simulating topological materials	Ben Hourahine	Luca Tagliacozzo	Rob Martin
1445	David	Loudon	Gravity Gradiometry with Satellite Constellations	Nick Lockerbie	Daniel Oi	Rob Martin
Date 3/5/2017						
1000	Niall	Grant	Resonant Optical Cavities	Nigel Langford	Antonio Hurtado	Aidan Arnold
1045	Alexander	MacKechnie	Resonant Optical Cavities	Nigel Langford	Antonio Hurtado	Aidan Arnold
1130	Shaun	Malone	Non Resonant Optical Cavities	Nigel Langford	Elmar Haller	Aidan Arnold
1215	Robbie	McDermott	Non Resonant Optical Cavities	Nigel Langford	Elmar Haller	Aidan Arnold

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1000	Anna	Gribbon	Precision Measurements with an Atom Interferometer	Paul Griffin	Jonathan Pritchard	Stefan
1045	Shannan	Foylan	Signal processing for Atomic Magnetometry	Paul Griffin	Jonathan Pritchard	Stefan
1130	Raymond	Kwok	Generation and propagation of spatially structured light	Paul Griffin	Brian Patton	Stefan
1215	Craig	Wardlaw	Generation and propagation of spatially structured light	Paul Griffin	Brian Patton	Stefan
1400	Lindsey	Keary	Observing Beam Propagation by Fluorescence	Aidan Arnold	Sebastian van de Linde	Stefan
1445	Richard	Anderson	Modelling a Hybrid Atom-Superconductor Quantum System	Jonathan Pritchard	Nick Lockerbie	Daniel Oi
Date 19/04/2017						
1000	Ellis	Gowan	Cold Atom-Light Interactions	Gordon Robb	Brian McNeil	Nigel Badnell
1045	Craig	Lees	Bose Einstein Condensate (BEC) Simulations	Gordon Robb	Aidan Arnold	Nigel Badnell
1130	Eilidh	McGowan	Interactive Physics Simulations	Gordon Robb	Nick Lockerbie	Nigel Badnell
1400	Stacey	Connan	Computational Modelling of X-ray Free Electron Lasers	Brian McNeil	Zhengming Sheng	Gian-Luca Oppo
1445	Lauren Christine	McFadzean	The scientific applications of X-ray Free Electron Lasers	Brian McNeil	Zhengming Sheng	Gian-Luca Oppo
1530	Lewis	McSheehy	The theory of X-ray Free electron Lasers	Brian McNeil	Zhengming Sheng	Gian-Luca Oppo

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1000	Aidan	McFadden	Quantifying the entanglement of global quantum evolutions and measurements	Marco Piani	Luca Tagliacozzo	John Jeffers
1045	Stuart Alexander	Flannigan	Topological band structures in optical lattices	Andrew Daley	Luca Tagliacozzo	John Jeffers
1130	Connor	McKeown	Quantification of the entanglement of identical particles	Marco Piani	Andrew Daley	John Jeffers
1215	Pavlos	Bozinakis	Quantum State Comparison and Correction Amplifier	John Jeffers	Marco Piani	Andrew Daley
1400	Ben	Charles	Measurement of non-linear processes in silicon photonic waveguide arrays	Michael Strain	Alan Kemp	Keith Mathieson
1445	Ian	Millar	Characterisation of diamond for laser applications	Alan Kemp	Michael Strain	Keith Mathieson
1530	David John	Dunbar	Photonic Neurons: Spiking information processing with lasers	Antonio Hurtado	Thorsten Ackemann	Keith Mathieson
1615	Ruaridh	Smith	Photonic Neurons: Spiking information processing with lasers	Antonio Hurtado	Thorsten Ackemann	Keith Mathieson
Date 19/04/2017						
1045	Emma	Fox	Domain Walls in Optical Fibre Resonators	Gian-Luca Oppo	Alison Yao	Daniel Oi
1130	Adam	Ramsay	Entangled Optical Turbulence	Gian-Luca Oppo	Alison Yao	Daniel Oi
1215	Liam	Rooney	Pattern formation with twisted beams	Alison Yao	Gordon Robb	Daniel Oi

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1000	David	Smyth	Investigation of energy exchange in relativistically transparent laser-plasma interactions	Paul McKenna	Martin King	Adrian Cross
1045	Scott John	Barrie	Femtosecond chemistry with laser-plasma-accelerators	Bernhard Hidding	Mark Wiggins	Adrian Cross
1130	Andrew	Faulds	Space Radiation Reproduction and Testing	Bernhard Hidding	Phil MacInnes	Adrian Cross
1215	Graham	Pettigrew	Coherent and incoherent combination of laser pulses	Bernhard Hidding	Bengt Eliasson	Adrian Cross
1400	Connor	Galbraith	Beam-driven Plasma Wakefield Acceleration (PWFA)	Bernhard Hidding	Dino Jaroszynski	Adrian Cross

Date 19/04/2017

1045	Ben	Williams	Parametric difference resonance in lasers	Francesco Papoff	Brian Patton	Brian McNeil
1130	Daniel	Gray	Modelling scanning near-field microscopy	Francesco Papoff	Sebastian van de Linde	Brian McNeil

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1000	Gavin	Graham	Intense laser pulse filamentation in near critical density plasmas	Ross Gray	Bengt Eliasson	Dino Jaroszynski
1045	Benjamin	McGrogan	Self-phase Modulation of Relativistically intense laser pulses in near critical density plasmas	Ross Gray	Martin King	Dino Jaroszynski
1130	Angus	Watt	Nonlinear Vacuum Electrodynamics	Adam Noble	Dino Jaroszynski	Kevin Ronald
1215	Aidan	White	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	Mark Wiggins	Dino Jaroszynski	Kevin Ronald
1400	Euan James	Palmer	Simulations of magnetic turbulence in plasma	Bengt Eliasson	Kevin Ronald	Paul McKenna
1445	Craig	Stevenson	High-Power Microwave Sources	Phil MacInnes	Adam Noble	Paul McKenna
1530	Zhe	Zheng	Compact X-ray sources from nonlinear Thomson scattering with intense lasers	Zhengming Sheng	Bengt Eliasson	Paul McKenna

TBA

Katherine	McLellan	Implementation and characterization of optical lattice potentials for ultracold atoms	Elmar Haller	Brian Patton	Daniel Oi
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Notes: Slots are 45 mins. Vivas are 35 mins (5 mins for informal presentation, 30 minutes for discussion). Please have reports marked the previous day before the viva and sent to the viva Chair so that they can be aware of any discrepancies in the report marks. Primary supervisors should also complete their assessment of the student's project work.