

PH450 Viva Schedule DRAFT 28/3/2018

Family Name	First Name	Project Title	Viva Date	Time**	Supervisor	Indep Marker	Chair	Room***
Cannon	Rachel	Computing the inverse square law	20/04/2018	TBC*	Ben Hourahine	David McKee	Carol Trager-Cowan	
Daffurn	Andrew	Twisted Nanostructures	20/04/2018	TBC*	Ben Hourahine	Brian Patton	Carol Trager-Cowan	
MacLean	Cameron	Plasma optical modulators for intense lasers	20/04/2018	TBC*	Zhengming Sheng	Brian McNeil	Dino Jaroszynski	
Catto	Jamie	Bose Einstein Condensate (BEC) Simulations	20/04/2018	10:00	Gordon Robb	Michael Strain	Gian-Luca Oppo	
Carroll	Mark	Opto-mechanics of Bose-Einstein Condensates in Optical Cavities	23/04/2018	TBC*	Gian-Luca Oppo	Marco Piani	Ben Hourahine	
Ferguson	Alistair	Cold Atom-Light Interactions	23/04/2018	TBC*	Gordon Robb	Antonio Hurtado	Ben Hourahine	
Salmond	Ben	Colour stability of LEDs from the red to the UV	26/04/2018	10:00	Jochen Bruckbauer	Paul Edwards	Ben Hourahine	
Scott	Philip	Neurophotonic Systems for Interfacing with the Retina	30/04/2018	10:00	Keith Mathieson	Jonathan Pritchard	Alan Kemp	
Bintener	Tom	Quantifying the resources of global quantum evolutions and measurements	30/04/2018	10:00	Marco Piani	Luca Tagliacozzo	Andrew Daley	
Lavan	Declan	Distinguishability of quantum states	30/04/2018	10:45	Marco Piani	Luca Tagliacozzo	Andrew Daley	
Pettigrew	Graham	Compact X-ray sources from nonlinear Thomson scattering with intense lasers	30/04/2018	14:00	Zhengming Sheng	Marco Piani	Francesco Papoff	
Love	Callum	Nonlinear Propagation of Structured Light	30/04/2018	14:00	Alison Yao	Michael Strain	Gian-Luca Oppo	
Reid	Michael	Creation and control of continuous-mode optical superposition qubits	30/04/2018	14:45	John Jeffers	Marco Piani	Gian-Luca Oppo	
Kinanis	Alexandros	Quantum interference and boson sampler verification	30/04/2018	14:00	Andrew Daley	Jonathan Pritchard	John Jeffers	
Thiagaraja	Anujan	Nonlinear Vacuum Electrodynamics	30/04/2018	14:00	Adam Noble	Bernhard Ersfeld	Nigel Badnell	
McClue	Dylan	Nonlinear waves in plasmas	30/04/2018	10:00	Adam Noble	Mark Wiggins	Zhengming Sheng	
Brodie	Seoras	Atomic Processes for Astrophysical Plasmas	30/04/2018	10:45	Nigel Badnell	Bernhard Ersfeld	Zhengming Sheng	
McCourt	Declan	Computational Modelling of X-ray Free Electron Lasers	30/04/2018	11:30	Brian McNeil	Luca Tagliacozzo	Zhengming Sheng	
Ballantyne	Calum	Implementation and characterization of optical lattice potentials for ultracold atoms	03/05/2018	14:00	Elmar Haller	Sebastian van de Linde	Alison Yao	
Vandeville	Victor	Four-wave Mixing in Atomic Gases	03/05/2018	14:45	Gordon Robb	Antonio Hurtado	Alison Yao	
Irwin	Edward	Making light-sheets for microscopy and mesoscopy	03/05/2018	10:00	Gail McConnell	Jennifer Hastie	Carol Trager-Cowan	

Preston	Jack	Long range entanglement in a hybrid atom-superconductor quantum processor	03/05/2018	14:00	Jonathan Pritchard	Jennifer Hastie	Daniel Oi	
McWilliam	Allan	Space Radiation Reproduction and Testing	03/05/2018	10:00	Bernhard Hidding	Wenlong He	Dino Jaroszynski	
Wilson	Kieran	Simulation of Langmuir probes and sheaths in plasma	03/05/2018	10:45	Kevin Ronald	Bernhard Ersfeld	Dino Jaroszynski	
Hamilton	Julie	Pathological modifications in proteins detected by their intrinsic fluorescence	03/05/2018	10:00	Olaf Rolinski	Paul Edwards	Neil Hunt	
Jackson	James	Quantum Dots TBC	03/05/2018	10:45	Olaf Rolinski	Paul Edwards	Neil Hunt	
Maclure	Daniel	Pathological modifications in proteins detected by their intrinsic fluorescence	03/05/2018	11:30	Olaf Rolinski	Paul Edwards	Neil Hunt	
McQueen	Christopher	Radiation Reaction	03/05/2018	10:00	Adam Noble	Bernhard Ersfeld	Nigel Badnell	
McLafferty	Sam	Nonlinear Optical Loop Mirrors Based on 3 X 3 fibre optic couplers	03/05/2018	10:00	Nigel Langford	Sebastian van de Linde	Stefan Kuhr	
McCallum	Jake	Signal processing for Atomic Magnetometry	03/05/2018	10:45	Paul Griffin	Elmar Haller	Stefan Kuhr	
McLaughlin	Sean	Grating Magneto-Optical Trap experiments	03/05/2018	11:30	Paul Griffin	Elmar Haller	Stefan Kuhr	
Steven	Rachael	A Polarisation Analyser for Quantum Optics Experiments	03/05/2018	12:15	Paul Griffin	Elmar Haller	Stefan Kuhr	
Burns	Elise	Investigation of Polytypism in nitride semiconductors	04/05/2018	10:00	Carol Trager-Cowan	Yu Chen	Robert Martin	
Waters	Dale	Investigation of Polytypism in nitride semiconductors	04/05/2018	10:45	Carol Trager-Cowan	Yu Chen	Robert Martin	
Kelly	Ellis	Electron beam physics and transport modelling	08/05/2018	10:00	Bernhard Hidding	Martin King	Adrian Cross	
Bruce	Emily	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	08/05/2018	10:45	Mark Wiggins	Wenlong He	Adrian Cross	
Clarkson	Scott	Design and Measurement of a Mode Converter for a Microwave Amplifier	08/05/2018	11:30	Wenlong He	Alan Young	Adrian Cross	
MacDonald	Louise	Design of a Brewster Window for a W-band Gyro-TWA	08/05/2018	12:15	Wenlong He	Alan Young	Adrian Cross	
Archibald	Stuart	Parametric difference resonance in lasers	08/05/2018	10:00	Francesco Papoff	Jennifer Hastie	Aidan Arnold	
McCormack	Robbie	Using angular momentum of light to detect particles in fluids	08/05/2018	10:45	Francesco Papoff	Antonio Hurtado	Aidan Arnold	
Stevenson	Jack	Investigation of multi-modal flex-tentional transducers	08/05/2018	11:30	Francesco Papoff	Alan Kemp	Aidan Arnold	
Earle	Alasdair	Investigating non-ideal behaviour in current-voltage curves from GaN-based LEDs	08/05/2018	12:15	Robert Martin	Antonio Hurtado	Aidan Arnold	
Anderson	Steven	Quantum applications of Semiconductor Disk Lasers	08/05/2018	14:00	Jennifer Hastie	Jonathan Pritchard	Alan Kemp	
Twaddle	William	Design and Construction of a Fabry-Perot Scanning Interferometer	08/05/2018	10:00	Elmar Haller	Sebastian van de Linde	Alison Yao	
Brown	Josh	Floquet theory for trapped atoms in optical lattices.	08/05/2018	10:00	Luca Tagliacozzo	Jonathan Pritchard	Andrew Daley	

Galbraith	Connor	Numerical simulation of cyclotron maser amplifiers	08/05/2018	14:00	Kevin Ronald	Martin King	Bernhard Hidding	
Taylor	Ahna	Hysteretic Photochromic Switching (HPS) of europium-magnesium (Eu-Mg) defects in GaN	08/05/2018	14:00	Kevin O'Donnell	David McKee	Brian Patton	
Percival	John	Quantification and measurement of marine microbial populations using the Mesolens	08/05/2018	14:45	Gail McConnell	Brian Patton	Francesco Papoff	
Jordan	Brian	Three-Dimensional Single-Molecule Based Super-Resolution Imaging	08/05/2018	10:45	Sebastian van de Linde	Yu Chen	Gail McConnell	
Brown	James	The scientific applications of X-ray Free Electron Lasers	08/05/2018	10:45	Brian McNeil	Luca Tagliacozzo	Gian-Luca Oppo	
Quinn	Gary	Understanding how to exploit diamond in solid-state lasers	08/05/2018	14:45	Alan Kemp	Paul Griffin	Keith Mathieson	
Wade	Ewan	Photonic Neurons: Spiking information processing with lasers	08/05/2018	15:30	Antonio Hurtado	Gordon Robb	Keith Mathieson	
Doak	Elliot	A Physical Investigation of Protein-drug Binding	08/05/2018	10:45	Neil Hunt	Olaf Rolinski	Kevin O'Donnell	
O'Hare	Dawn	Uncovering the Early Stages of Protein Folding	08/05/2018	11:30	Neil Hunt	Olaf Rolinski	Kevin O'Donnell	
Sloan	Sean	Design and simulation of a millimetre wave source based on a pseudospark produced electron beam	09/05/2018	10:00	Adrian Cross	Wenlong He	Kevin Ronald	
McCrory	Kieran	Ion Channel Laser with Large Oscillation Amplitude	09/05/2018	10:45	Bernhard Ersfeld	Brian McNeil	Kevin Ronald	
Rutherford	Lorne	Space Radiation Reproduction and Testing	09/05/2018	11:30	Bernhard Hidding	Daniel Oi	Kevin Ronald	
Campbell	David	Monte Carlo Modelling of Particle Beam-Matter Interaction	09/05/2018	10:00	Bernhard Hidding	Brian McNeil	Nigel Badnell	
Boyle	Michael	Simulations of the Demonstration of Ionisation Cooling Experiment	09/05/2018	10:45	Alan Young	Mark Wiggins	Nigel Badnell	
Cuthbertson	Stuart	Moving a standing wave with an electronically controlled piezo-mirror device	09/05/2018	10:00	Gail McConnell	Brian Patton	Robert Martin	
Graham	Stuart	Phosphorescence of glowstones™	09/05/2018	10:45	Kevin O'Donnell	David McKee	Robert Martin	
Anderson	Stewart	Astigmatic mirror multipass absorption cells for long path length spectroscopy	09/05/2018	10:00	Nigel Langford	Sebastian van de Linde	Stefan Kuhr	
Webster	David	RE-doped III-nitrides for solid state lighting applications	09/05/2018	11:30	Kevin O'Donnell	David McKee	Yu Chen	
Geddes	Daniel	Acquisition, Pointing, and Tracking for CubeSat QKD	14/05/2018	TBC*	Daniel Oi	Oliver Henrich	Alison Yao	
Highton	Jennifer	An ultrafast, time-resolving ion spectrometer as a diagnostic of intense laser-plasma dynamics	14/05/2018	TBC*	Paul McKenna	Mark Wiggins	Bengt Eliasson	
Hunter	Daniel	Intense Laser Pulse Filamentation in Near Critical Density Plasmas	14/05/2018	TBC*	Paul McKenna	Mark Wiggins	Bengt Eliasson	

Valk	Jilles	Modelling relativistic electron motion in spatially varying intense laser fields	14/05/2018	TBC*	Paul McKenna	Alan Young	Bengt Eliasson	
McFarlane	Mollie	mRNA nanoparticles for cancer detection	14/05/2018	TBC*	Yu Chen	Oliver Henrich	David McKee	
Smith	Cameron	Interactive Physics Simulations	14/05/2018	TBC*	Gordon Robb	Oliver Henrich	Gail McConnell	
Reddie	Grant	Gravity Gradiometry with Satellite Constellations	14/05/2018	14:45	Daniel Oi	Oliver Henrich	John Jeffers	
Lesniewska	Magdalena	Large scale lattice-Boltzmann simulation of colloid-liquid crystal composite materials	14/05/2018	TBC*	Oliver Henrich	Brian Patton	John Jeffers	
Glass	Helena	Grating magneto-optical trap modelling	15/05/2018	TBC*	Aidan Arnold	Michael Strain	Daniel Oi	
O'Brien	Ciaran	Magnetic states with long-range interactions	15/05/2018	TBC*	Andrew Daley	Michael Strain	John Jeffers	
Bommer	Sean	Development of a highly accurate alignment process for multi-stage laser lithography	15/05/2018	TBC*	Michael Strain	Paul Griffin	Keith Mathieson	
Moir	Connor	Stochastic Particle Heating of Charged Particles by Plasma Waves	15/05/2018	TBC*	Bengt Eliasson		Paul McKenna	
Benson	Philippa	Simulations of magnetic turbulence in plasma	18/05/2018	TBC*	Bengt Eliasson		Dino Jaroszynski	
Williamson	Murray	High power laser-driven X-ray sources in dense plasma	18/05/2018	TBC*	Paul McKenna		Dino Jaroszynski	

Notes [DO 28/3/2018]:

* For "TBC" entries, Supervisors should check that students can make dates outside official Viva Period

** Times are flexible. Examiners and student are welcome to reschedule for their convenience (as long as it does not create a clash)

*** Rooms TBA, however I will assume that vivas will occur in the office of the Chair unless otherwise notified.