

Wednesday 13/02/2019

Chair: Alan Kemp				
1300	STEPHEN SAM CAMPBELL	Understanding how to exploit diamond in solid-state lasers	Alan Kemp	Vasili Savitski
1315	FARLEY EUAN	Spectroscopy of Dy-doped crystals for mid-IR laser applications	Vasili Savitski	Alan Kemp
1330	STOYANOV SVETOSLAV	Photon velocity control on a silicon photonic chip	Michael Strain	Benoit Guilhabert
1345	GAVIGAN EUAN	High speed measurement of non-linear processes in silicon nanowire photonics	Michael Strain	Gian-Luca Oppo
1400	MCCAHOH STEVEN	A 6 degree-of-freedom platform for Micro-Transfer Printing on curved surfaces	Michael Strain	Benoit Guilhabert

Chair: John Jeffers				
1430	WALLACE STEWART	Magnetic states with long-range interactions	Andrew Daley	
1445	WEBB JONATHAN	Quantum transport in superconducting wires and cold atoms	Andrew Daley	
1500	GREEN INNES	Two-Photon Young’s Beamsplitters for Communication	John Jeffers	
1515	NIKOLATOS CHARALAMPOS	Creation and control of continuous-mode optical superposition qubits	John Jeffers	Luca Mazzarella
1530	WOODWARD KIERAN	Coherent Perfect Amplification of Light	John Jeffers	Daniel Oi

Chair: Jonathan Pritchard				
1600	DYER SEAN	Keeping time with a laser pointer	Jonathan Pritchard	Erling Riis
1615	MILLAR CALUM	Generating Arbitrary Arrays for Quantum Information Processing	Jonathan Pritchard	Aidan Arnold
1630	MITCHELL MATTHEW	Design, construction and assessment of a piezoelectric rotation mount for optical waveplates	Elmar Haller	Stefan Kuhr
1645	BREGAZZI ALAN	Observing Beam Propagation by Fluorescence	Aidan Arnold	Paul Griffin

Wednesday 20/02/2019

Chair: Ben Hourahine				
1300	DRAKOPOULOS ALEXIS JOHANNES	Learning the Ising Model	Ben Hourahine	
1315	KOTZAI ALBES	Computing the inverse square law	Ben Hourahine	
1330	MORRISON AINSLEY	Optical Modes and Multiple Scattering	Ben Hourahine	Francesco Papoff
1345	BENTLEY-ABBOT CALUM	Lattice Boltzmann Simulation of Flow Through Topological Defects	Oliver Henrich	
1400	HUDEK MAGDALENA	Coarse-Grained DNA Simulation of Bacterial Plasmids	Oliver Henrich	

Chair: Gail McConnell				
1430	MCCORMICK EMMA	Exploring Standing Wave Microscopy for Imaging Microalgae	Jana Schniete	Gail McConnell
1445	CLAPPERTON MEGAN	Quantification of 3D Mesolens image datasets	Gail McConnell	
1500	CRAIG REBECCA	Optical clearing of mouse tissue for mesoscopic imaging	Gail McConnell	
1515	HARLEY IAIN JAMES	Automated Image Analysis in Single-Molecule Localization Microscopy	Sebastian van de Linde	Oliver Henrich
1530	PHILLIPS ROSS	Three-Dimensional Single-Molecule Based Super-Resolution Imaging	Sebastian van de Linde	Brian Patton

Chair: Brian Patton				
1600	QUINN CALUM	Evaluating Spot-Finding Methods	Sebastian van de Linde	Daniel Oi
1615	CHRISTOPHER JAY	Can techniques from nanoscale imaging help millimetre scale mesoscopy?	Brian Patton	
1630	RICHFORD KYLE HUGH	Development of a Phase Contrast Imaging system for use with an in-development low-cost, open-access detector for water quality	Brian Patton	Stephen Grant
1645	WISTUBA JORDAN	Characterisation and implementation of computational super-resolution algorithms	Brian Patton	Sebastian van de Linde

Chair: Paul Griffin				
1300	LIVINGSTONE KYLE	Astigmatic mirror multipass absorption cells for long path length spectroscopy	Nigel Langford	
1315	THOMSON WAYNE	Astigmatic mirror multipass absorption cells for long path length spectroscopy	Nigel Langford	
1330	SMYTH STUART	Grating Magneto-Optical Trap experiments	Paul Griffin	Oliver Burrow
1345	SHAW ROBERT	Propagation of orbital-angular momentum beams through a scattering medium	Paul Griffin	David McKee
1400	GETCHELL CLAIRE	Scattering of twisted light by chiral molecules	Robert Cameron	Alison Yao

Chair: Francesco Papoff				
1430	GENTILE ALESSIO	Nonlinear Propagation of Fully Structured Light	Alison Yao	Duncan McArthur
1445	GOVENLOCK GREIG STEPHEN	Helical waves in optical cavities for quantum communication	Alison Yao	Gian-Luca Oppo
1500	FORREST STEVEN	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee
1515	MCGURK COLLETTE	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee
1530	RAHMAN ZAINA	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee

Chair: Gian-Luca Oppo				
1600	DUFF GRAHAM	Soliton Glass	Gian-Luca Oppo	Francesco Papoff
1615	GRANT MARK	Domain Walls in Optical Fibre Resonators	Gian-Luca Oppo	Alison Yao
1630	HENDERSON GRANT	Opto-mechanics of Bose-Einstein Condensates in Optical Cavities	Gian-Luca Oppo	Gordon Robb
1645				

Chair: Daniel Oi				
1300	LEASK VAILA ANN	Atomic Physics Game Design for Outreach Activities	Stuart Ingleby	Paul Griffin, Gordon Robb
1315	PANTONY LEWIS	Interactive Physics Simulations	Gordon Robb	Nigel Langford
1330	KEAY AIDAN	Characterising Digital Camera Sensors	Daniel Oi	
1345	SHAW KYLE	Characterising Digital Camera Sensors	Daniel Oi	
1400	STULGA DALIUS	Reference Frames, Superselection, and Entanglement	Daniel Oi	

Chair: Thorsten Ackemann				
1430	KOPP YASMINE	Photonic Neurons: Spiking information processing with lasers	Antonio Hurtado	Thorsten Ackemann
1445	HALL BRENDAN	Quantum applications of Semiconductor Disk Lasers	Jennifer Hastie	Paulo Hisao Moriya
1500	CONN BHAYLIE	Beam Quality of Broad-area Diode Lasers	Thorsten Ackemann	Michael Strain
1515	SAEED KAISER	Characterization of optically pumped quantum well and quantum dot vertical-cavity structures	Thorsten Ackemann	Antonio Hurtado
1530				

Chair: Yu Chen				
1600	ANWAR ZUHRAH	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	Yu Chen
1615	WILLMS TIDO	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	Yu Chen
1630	STEWART CHRISTOPHER	Noble Metal Quantum Dots	Yu Chen	
1645				

Chair: Dino Jaroszynski				
1300	LEE ROSS	Atomic Processes for Astrophysical Plasmas	Nigel Badnell	Junjie Mao
1315	MCARTHUR MURRAY	Atomic Processes for Astrophysical Plasmas	Nigel Badnell	Junjie Mao
1330	BUCK ANGUS	Radiation Reaction	Adam Noble	Dino Jaroszynski, Samuel Yoffe
1345	AVIS WILLIAM	Nonlinear vacuum electrodynamics	Adam Noble	
1400	FRASER ROSS	Investigation of attosecond duration relativistic bunch injection in the laser-plasma wakefield accelerator	Samuel Yoffe	Dino Jaroszynski

Chair: Bernhard Hidding				
1430	MACLEOD LEWIS	Ion Channel Laser with Large Oscillation Amplitude	Bernhard Ersfeld	Dino Jaroszynski
1445	HANNAWAY THOMAS	Beam-driven Plasma Wakefield Acceleration (PWFA)	Bernhard Hidding	Dino Jaroszynski
1500	HEWITT ADAM	Space Radiation Reproduction and Testing	Bernhard Hidding	Mark Wiggins
1515	DOWNS SOPHIE	Monte Carlo Modelling of Particle Beam-Matter Interaction	Bernhard Hidding	Mark Wiggins
1530	DUNCAN CRAIG	Space Radiation Reproduction and Testing	Bernhard Hidding	Mark Wiggins

Chair: Bengt Eliasson				
1600	DONEV DIMITAR	the Scattering of Relativistic Electrons off Electromagnetic Ion Cyclotron Waves	Bengt Eliasson	Kevin Ronald
1615	ELLIOT CAMERON	Stochastic Particle Heating of Charged Particles by Plasma Waves	Bengt Eliasson	Kevin Ronald
1630	PURVIS ANTHONY	Simulations of the Demonstration of Ionisation Cooling Experiment	Alan Young	Kevin Ronald
1645	DICKSON GARRY	Design of a Frequency Swept, Multi-Megawatt, Cherenkov Oscillator	Phil MacInnes	Kevin Ronald

Chair: Zhengming Sheng				
1300	FAN CHENTAO	Plasma Optical Modulators for Intense Lasers	Zhengming Sheng	Weimin Wang
1315	LIU YINHONG	Attosecond radiation from laser interaction with a solid target	Zhengming Sheng	Weimin Wang
1330	WANG ZHANGYU	Terahertz radiations driven by two-colour lasers in gas	Zhengming Sheng	Weimin Wang
1345	EASTON JACK	Design, simulation and experiments of a microwave undulator	Adrian Cross	Liang Zhang
1400	HAMEED SAIRA	Design, simulation and experiments of an Extended Interaction Oscillator based on a pseudospark sourced sheet electron beam	Adrian Cross	Huabi Yin

Chair: Mark Wiggins				
1430	CUTTING EUAN	Radiation reaction effects in ultra-intense laser-foil interactions	Paul McKenna	Remi Capdessus
1445	DOLIER EWAN	Laser-driven ion acceleration from ultrathin foils undergoing relativistic self-induced transparency	Paul McKenna	Robbie Wilson
1500	BALLANTYNE FRASER ROBERT	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	Mark Wiggins	
1515	MACDONALD LOUISE	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	Mark Wiggins	
1530	WALLACE MATTAN	An ultrafast, time-resolving ion spectrometer as a diagnostic of intense laser-plasma dynamics	Ross Gray	Robbie Wilson

Chair: Brian McNeil				
1600	SINCLAIR CRAIG	Bose Einstein Condensate (BEC) Simulations	Gordon Robb	Aidan Arnold
1615	WALKER JOSH	Bose Einstein Condensate (BEC) Simulations	Gordon Robb	Aidan Arnold
1630	ANDERSON JOHN	Computational Modelling of X-ray Free Electron Lasers	Brian McNeil	Gordon Robb
1645	LIDSTRÖM SEBASTIAN	The theory of X-ray Free electron Lasers	Brian McNeil	Gordon Robb