PH450 Project Allocation

Student	Title	1st	2nd
AVIS WILLIAM	Nonlinear vacuum electrodynamics	Adam Noble	
BUCK ANGUS	Radiation Reaction	Adam Noble	Dino Jaroszynski, Samuel Yoffe
EASTON JACK	Design, simulation and experiments of a microwave undulator	Adrian Cross	Liang Zhang
HAMEED SAIRA	Design, simulation and experiments of an Extended Interaction Oscillator based on a pseudospark sourced sheet electron beam	Adrian Cross	Huabi Yin
BREGAZZI ALAN	Observing Beam Propagation by Fluorescence	Aidan Arnold	Paul Griffin
STEPHEN SAM CAMPBELL	Understanding how to exploit diamond in solid-state lasers	Alan Kemp	Vasili Savitski
PURVIS ANTHONY	Simulations of the Demonstration of Ionisation Cooling Experiment	Alan Young	Kevin Ronald
GENTILE ALESSIO	Nonlinear Propagation of Fully Structured Light	Alison Yao	Duncan McArthur
GOVENLOCK GREIG STEPHEN	Helical waves in optical cavities for quantum communication	Alison Yao	Gian-Luca Oppo
WALLACE STEWART	Magnetic states with long-range interactions	Andrew Daley	
WEBB JONATHAN	Quantum transport in superconducting wires and cold atoms	Andrew Daley	
KOPP YASMINE	Photonic Neurons: Spiking information processing with lasers	Antonio Hurtado	Thorsten Ackemann
DRAKOPOULOS ALEXIS JOHANNES	Learning the Ising Model	Ben Hourahine	
KOTZAI ALBES	Computing the inverse square law	Ben Hourahine	
MORRISON AINSLEY	Optical Modes and Multiple Scattering	Ben Hourahine	Francesco Papoff
ELLIOT CAMERON	Stochastic Particle Heating of Charged Particles by Plasma Waves	Bengt Eliasson	Kevin Ronald
MACLEOD LEWIS	Ion Channel Laser with Large Oscillation Amplitude	Bernhard Ersfeld	Dino Jaroszynski
DOWNS SOPHIE	Monte Carlo Modelling of Particle Beam-Matter Interaction	Bernhard Hidding	Mark Wiggins
DUNCAN CRAIG	Space Radiation Reproduction and Testing	Bernhard Hidding	Mark Wiggins
HANNAWAY THOMAS	Beam-driven Plasma Wakefield Acceleration (PWFA)	Bernhard Hidding	Dino Jaroszynski
HEWITT ADAM	Space Radiation Reproduction and Testing	Bernhard Hidding	Mark Wiggins
ANDERSON JOHN	Computational Modelling of X-ray Free Electron Lasers	Brian McNeil	Gordon Robb
LIDSTRÖM SEBASTIAN	The theory of X-ray Free electron Lasers	Brian McNeil	Gordon Robb
CHRISTOPHER JAY	Can techniques from nanoscale imaging help millimetre scale mesoscopy?	Brian Patton	
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
WISTUBA JORDAN	Characterisation and implementation of computational super-resolution algorithms	Brian Patton	Sebastian van de Linde
KEAY AIDAN	Characterising Digital Camera Sensors	Daniel Oi	
SHAW KYLE	Characterising Digital Camera Sensors	Daniel Oi	

STULGA DALIUS	Reference Frames, Superselection, and Entanglement	Daniel Oi	
MITCHELL MATTHEW	Implementation and characterization of optical lattice potentials for ultracold atoms	Elmar Haller	Stefan Kuhr
CURRAN KEVIN	Scattering of light beams carrying angular momentum	Francesco Papoff	Alison Yao
FORREST STEVEN	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee
MCGURK COLLETTE	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee
RAHMAN ZAINA	Using angular momentum of light to detect particles in fluids	Francesco Papoff	Alison Yao, David McKee
CLAPPERTON MEGAN	Quantification of 3D Mesolens image datasets	Gail McConnell	
CRAIG REBECCA	Optical clearing of mouse tissue for mesoscopic imaging	Gail McConnell	
DUFF GRAHAM	Soliton Glass	Gian-Luca Oppo	Francesco Papoff
GRANT MARK	Domain Walls in Optical Fibre Resonators	Gian-Luca Oppo	Alison Yao
HENDERSON GRANT	Opto-mechanics of Bose-Einstein Condensates in Optical Cavities	Gian-Luca Oppo	Gordon Robb
PANTONY LEWIS	Interactive Physics Simulations	Gordon Robb	Nigel Langford
SINCLAIR CRAIG	Bose Einstein Condensate (BEC) Simulations	Gordon Robb	Aidan Arnold
WALKER JOSH	Bose Einstein Condensate (BEC) Simulations	Gordon Robb	Aidan Arnold
MCCORMICK EMMA	Exploring Standing Wave Microscopy for Imaging Microalgae	Jana Schniete	Gail McConnell
HALL BRENDAN	Quantum applications of Semiconductor Disk Lasers	Jennifer Hastie	Paulo Hisao Moriya
GREEN INNES	Two-Photon Young's Beamsplitters for Communication	John Jeffers	
NIKOLATOS CHARALAMPOS	Creation and control of continuous-mode optical superposition qubits	John Jeffers	Luca Mazzarella
WOODWARD KIERAN	Coherent Perfect Amplification of Light	John Jeffers	Daniel Oi
DYER SEAN	Keeping time with a laser pointer	Jonathan Pritchard	Erling Riis
MILLAR CALUM	Generating Arbitrary Arrays for Quantum Information Processing	Jonathan Pritchard	Aidan Arnold
BALLANTYNE FRASER ROBERT	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	Mark Wiggins	
MACDONALD LOUISE	Medical Radioisotope Production using a Laser-Plasma Wakefield Accelerator	Mark Wiggins	
GAVIGAN EUAN	High speed measurement of non-linear processes in silicon nanowire photonics	Michael Strain	Gian-Luca Oppo
MCCAHON STEVEN	A 6 degree-of-freedom platform for Micro-Transfer Printing on curved surfaces	Michael Strain	Benoit Guilhabert
STOYANOV SVETOSLAV	Photon velocity control on a silicon photonic chip	Michael Strain	Benoit Guilhabert
LEE ROSS	Atomic Processes for Astrophysical Plasmas	Nigel Badnell	Junjie Mao
MCARTHUR MURRAY	Atomic Processes for Astrophysical Plasmas	Nigel Badnell	Junjie Mao
LIVINGSTONE KYLE	Astigmatic mirror multipass absorption cells for long path length spectroscopy	Nigel Langford	
THOMSON WAYNE	Astigmatic mirror multipass absorption cells for long path length spectroscopy	Nigel Langford	
ANWAR ZUHRAH	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	Yu Chen

WILLMS TIDO	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	Yu Chen
BENTLEY-ABBOT CALUM	Lattice Boltzmann Simulation of Flow Through Topological Defects	Oliver Henrich	
HUDEK MAGDALENA	Coarse-Grained DNA Simulation of Bacterial Plasmids	Oliver Henrich	
SHAW ROBERT	Propagation of orbital-angular momentum beams through a scattering medium	Paul Griffin	David McKee
SMYTH STUART	Grating Magneto-Optical Trap experiments	Paul Griffin	Oliver Burrow
CUTTING EUAN	Radiation reaction effects in ultra-intense laser-foil interactions	Paul McKenna	Remi Capdessus
DOLIER EWAN	Laser-driven ion acceleration from ultrathin foils undergoing relativistic self-induced transparency	Paul McKenna	Robbie Wilson
DICKSON GARRY	Design of a Frequency Swept, Multi-Megawatt, Cherenkov Oscillator	Philip MacInnes	Kevin Ronald
GETCHELL CLAIRE	Scattering of twisted light by chiral molecules	Robert Cameron	Alison Yao
WALLACE MATTAN	An ultrafast, time-resolving ion spectrometer as a diagnostic of intense laser-plasma dynamics	Ross Gray	Robbie Wilson
FRASER ROSS	Investigation of attosecond duration relativistic bunch injection in the laser-plasma wakefield accelerator	Sam Yoffe	Dino Jaroszynski
PHILLIPS ROSS	Three-Dimensional Single-Molecule Based Super-Resolution Imaging	Sebastian van de Linde	Brian Patton
QUINN CALUM	Evaluating Spot-Finding Methods	Sebastian van de Linde	Daniel Oi
HARLEY IAIN JAMES	Automated Image Analysis in Single-Molecule Localization Microscopy	Sebastuan van de Linde	Oliver Henrich
LEASK VAILA ANN	Atomic Physics Game Design for Outreach Activities	Stuart Ingleby	Paul Griffin, Gordon Robb
CONN BHAYLIE	Beam Quality of Broad-area Diode Lasers	Thorsten Ackemann	Michael Strain
SAEED KAISER	Characterization of optically pumped quantum well and quantum dot vertical-cavity structures	Thorsten Ackemann	Antonio Hurtado
FARLEY EUAN	Spectroscopy of Dy-doped crystals for mid-IR laser applications	Vasili Savitski	Alan Kemp
STEWART CHRISTOPHER	Noble Metal Quantum Dots	Yu Chen	
FAN CHENTAO	Plasma Optical Modulators for Intense Lasers	Zhengming Sheng	Weimin Wang
LIU YINHONG	Attosecond radiation from laser interaction with a solid target	Zhengming Sheng	Weimin Wang
WANG ZHANGYU	Terahertz radiations driven by two-colour lasers in gas	Zhengming Sheng	Weimin Wang