Surname	First name	Project Title	Supervisor
Aguiar Maduro	Richard	Grating magneto-optical trap modelling	Aidan Arnold
Bartlett	Brandon	Lenses for cooling atoms	Aidan Arnold
Ramsay	Keir	Use of ABCD matrices to design laser resonators	Alan Kemp
Wang	Haofu	Laser specification and design for undersea LIDAR	Alan Kemp
Duncan	Nicholas	Numerical simulation of cyclotron maser amplifiers	Alan Young
Parker	Thomas	Analysis of Muon Ionisation Cooling Experiment	Alan Young
Moretti	Rachel	Engineering semiconductor defects for quantum electronics	Alessandro Rossi
Carey	Sarah	Control of spatially rotating structures in diffractive Kerr cavities	Alison Yao
Iqbal	Zoha	Nonlinear Propagation of Fully Structured Light	Alison Yao
Aroca Salom	Jose Enrique	Simulation of non-Markovian dynamics of an impurity in a reservoir gas	Andrew Daley
Humphreys	Oliver	Building the spectra of quasicrystals in magnetic fields	Andrew Daley
Muñoz Peligro	Paula	Casimir-Polder Forces and Optical Fibres	Andrew Daley
Austin	Connor	Photonic neurons with lasers for ultrafast brain-inspired computing	Antonio Hurtado
Gorrie	Alister John	Spiking neurons with resonant tunneling diodes for high speed and energy efficient neuromorphic nanophotonic computing	Antonio Hurtado
Martinez-Cosentino Blasco	Fernando	Photonic neurons with lasers for ultrafast brain-inspired computing	Antonio Hurtado
Calderwood	Connor	Simulating structural defects in α-Ga2O3	Ben Hourahine
Mir	Tariq	Twisted nanostrutures	Ben Hourahine
Morton	Ross	Correlated quantum transport	Ben Hourahine
Graham	Cameron	Scattering of relativistic electrons off electromagnetic ion cyclotron waves	Bengt Eliasson
Higgins	Mark	Stochastic particle heating of charged particles by plasma waves	Bengt Eliasson
Arpad	Lenart	Space radiation reproduction with laser-plasma-accelerators and Monte Carlo codes	Bernhard Hidding
Georgiou	Kostas	Laser pulse based ionization of matter	Bernhard Hidding
McAuley	Connor	Electron beam transport modelling and machine learning in particle accelerators	Bernhard Hidding
Torrance	Ben	Particle-in-cell modelling of laser-plasma acceleration with kHz lasers	Bernhard Hidding

Ireland	Paul	Computational Modelling of X-ray Free Electron Lasers	Brian McNeil
McMillan	Adam	The theory of X-ray Free electron Lasers	Brian McNeil
Bertonesi	Jennifer	Constructing and testing a portable holographic microscope	Brian Patton
Sahi	Gurpreet	Adaptive noise reduction for sCMOS cameras	Brian Patton
McNeill	Rory	Ortho-mode transducers for polarisation control	Colin Whyte
Cope	Ellie	Investigation of a Microwave undulator for Free-Electron Laser	Craig Donaldson
Dempsey	Fionn	High Precision Timing for Satellite Quantum Communication	Daniel Oi
Fergusson	Jacqueline	Quantum Source Intensity Monitoring	Daniel Oi
Lynagh	Conor	Characterisation of Digital Cameras	Daniel Oi
Carroll - Canning	Ava	Why do ocean colour chlorophyll products fail in coastal waters?	David McKee
Paterson	Ross	Why do ocean colour chlorophyll products fail in coastal waters?	David McKee
Couttie	Benedict	Simulation and optimisation of a high-k scattering diagnostic for fusion plasma turbulence studies	David Speirs
Bell	Kaitlyn	A coherent synchrotron source based on a laser-plasma wakefield accelerator	Dino Jaroszynski
Dallas	Gemma Louise	Photoconduction in wide bandgap semiconductors	Fabien Massabuau
McLelland	Megan	Luminescence properties of Ga2O3 semiconductors	Fabien Massabuau
Melville	Stuart	Analysis of Automatic Captioning Software	Francesco Papoff
Polland	Kay	Quantum Dots Nanolasers	Francesco Papoff
Terry	Derek	Quantum Dots Nanolasers	Francesco Papoff
Doran	Jordan	Lloyd's mirror in standing wave microscopy	Gail McConnell
Kacinskaite	Evelina Gabriele	Reducing the information gap in standing wave microscopy	Gail McConnell
Bartholomew	Stuart	Weird interactions of Cavity Solitons	Gian-Luca Oppo
MacCuish	Iain	Opto-mechanics of Bose-Einstein Condensates in Optical Cavities	Gian-Luca Oppo
Deegan	Emma	Interactive Physics simulations	Gordon Robb
Kistenberger	Susan	BEC simulations	Gordon Robb
Wood	Gary	Interactive Physics simulations	Gordon Robb

McGinty	Steven James	Python model of single-photon technologies	Johannes Herrnsdorf
Wright	Calum	Python model of single-photon technologies	Johannes Herrnsdorf
Dixon	James	How many photons make an image?	John Jeffers
Johnston	Zak	Thermal Quantum Lidar	John Jeffers
Kilianski	Romuald	Ghost Displacement	John Jeffers
Agnew	Nicola	New schemes for microwave Rydberg sensing	Jonathan Pritchard
Lockie	Jack	Photoionization modeling of AGN winds	Junjie Mao
Morrison	Kirsty	Chemical evolution of galaxies	Junjie Mao
Marshall	Thomas	RF-gated Thermionic Injector Gun for Free-Electron Laser	Liang Zhang
Harrison	Jack	Tamper-indicating quantum seal	Lucia Caspani
Crompton	Malcolm	Focusing electron beams from a laser-plasma wakefield accelerator	Mark Wiggins
Murray	Curtis	Focusing electron beams from a laser-plasma wakefield accelerator	Mark Wiggins
Inglis	Matthew	Spectral properties of reflected laser light from expanding plasma targets	Martin King
Vugrinec	Dominik	Atomic physics of high Z elements in fusion	Martin O'Mullane
Cassells	Ross	Photon pair generation in integrated ring resonator devices	Michael Strain
Ivens	George	Photon pair generation in integrated ring resonator devices	Michael Strain
Mills	Brandon	3D imaging using time of flight and photometric stereo techniques	Michael Strain
Callan	David	Investigating the effect of gas pressure on the electron diffraction patterns	Naresh Kumar
Williams	Martin	Investigating the origin of red emission in gallium oxide semiconductors	Naresh Kumar
Brown	Mollie	Atomic Processes for Astrophysical Plasmas I	Nigel Badnell
Yeoman	Neal	Atomic Processes for Astrophysical Plasmas II	Nigel Badnell
Gill	Megan	Optical Cavities	Nigel Langford
Kirkpatrick	Ross Douglas	Optical Cavities	Nigel Langford
Doveiko	Daniel	Numerical modelling of FRET in Human Serum Albumin	Olaf Rolinksi
Cashel	Thomas	Numerical modelling of FRET in beta-amyloid	Olaf Rolinski

Woodbyrne	Shamar	Numerical modelling of FRET in nanostructures	Olaf Rolinski
McDougall	Cameron	Coarse-grained DNA simulation of DNA supercoiling	Oliver Henrich
Donnelly	Joshua	Electron microscope analysis of semiconductor alloys	Paul Edwards
McConnachie	Gary	Web-based electron diffraction tool	Paul Edwards
Cumming	Jack	Simulation of Maxwells equations for optical design of quantum technologies	Paul Griffin
Quaeck	Charlie	Using quantum sensors to measure human heart activity	Paul Griffin
Cruickshank	Robbie	Synchronisation in open quantum systems	Peter Kirton
Shek	Hon San Callum	Quantum correlations in nano-lasers	Peter Kirton
O'Shea	Joshua	Correlating compositional variation to the optical emission properties of tin-gallium oxide semiconductors	Rob Martin
Edgar	Daniel	Self-referencing spectral interferometry as a diagnostic of relativistic induced transparency	Robbie Wilson
Franchetti	Emmanuel	Evaluating Spot-Finding Methods	Sebastian van de Linde
Koehn	Lennart	Numerical simulation of optical transport	Stefan Kuhr
Ulm	Clemens	Optimising deconvolution of single-atom fluorescence images	Stefan Kuhr
Kerr	Deryn Jennifer	Atomic Physics Simulation for Outreach and Learning	Stuart Ingleby
MacDonald	Fiona	Innovation and translation of a miniature atomic clock platform	Susan Spesyvtseva
Barnard	Fraser	Photon statistics of small lasers	Thorsten Ackemann
Kostial	Andrej	Optical properties of metal-dielectric nanocomposites	Yu Chen
O'Neill	Kyle John Francis	Plasmon enhanced fluorescence	Yu Chen
Jennings	Elizabeth	Electron acceleration assisted by radiation friction in ultra-intense laser fields	Zheng-Ming Sheng