Project Presentation

Each student will be required to give a short project talk - **(Each talk should be 10 mins duration leaving 5 mins for questions)**

27th March 2013

Chairman: Prof Erling Riis, JA 8.11

Student	Project	Degree	Year	Time	Supervisors
Calum Macrae	Coherent Population Trapping in Atomic Vapours	MPhys Physics	4	1:00 – 1:15pm	Erling Riis, Paul Griffin
James McGilligan	Bose-Einstein Condensate Experiments	MPhys Physics	4	1:15 – 1:30pm	Aidan Arnold, Erling Riis
Martin Grant	Self-organized Patterns in Rb Vapour	MPhys Physics	4	1:30 – 1:45pm	Thorsten Ackemann, Aidan Arnold
Mark Logan	Polarization and Feedback Dynamics of VCSELs	MPhys Physics	4	1:45 – 2:00pm	Thorsten Ackemann, Erling Riis
Constantinos Papadopoulos	Simulations of Coupled Laser Networks	BSc Hons Physics	4	2:00 – 2:15pm	Gian-Luca Oppo, Thorsten Ackemann
Calum Williams	Simulations of Spin-Polarized Vertical-Cavity Surface-Emitting Lasers	MPhys Physics	4	2:30 – 2:45pm	Gian-Luca Oppo, Thorsten Ackemann
Daniel Keany	Helical Waves in Optical Cavities	BSc Hons Mathematics and Physics	4	2:45 – 3:00pm	Gian-Luca Oppo, Alison Yao
Mark Boules	Interaction of Spatial Optical Solitons	MPhys Physics	4	3:00 – 3:15pm	Gian-Luca Oppo, Willie Firth
Oliver Hay	Diffusion Distances in Complex Networks	MPhys Physics	4	3:15 – 3:30pm	Ernesto Estrada, Gian-Luca Oppo
Dominic Hunter	Bose Einstein Condensate (BEC) Simulations	MPhys Physics	4	3:30 – 3:45pm	Gordon Robb, Aidan Arnold
Andrew Mackellar	Bose Einstein Condensate (BEC) Simulations	MPhys Physics	4	4:00 – 4:15pm	Gordon Robb, Aidan Arnold
Richard Peddie	Fluctuations and Noise in Cold Atoms	MPhys Physics	4	4:15 – 4:30pm	Francesco Papoff, Gordon Robb
Ben Docherty	Resonant Electron Beam-light Interactions	MPhys Physics	4	4:30 – 4:45pm	Brian McNeil, Gordon Robb
Luke Nuttall	Modelling 4th Generation Light Sources	BSc Hons Mathematics and Physics	4	4:45 – 5:00pm	Brian McNeil, Gordon Robb

27th March 2013

Chairman: Prof Kevin O'Donnell, JA 5.05

Student	Project	Degree	Year	Time	Supervisors
Christina Gilruth	Historical Physics Equipment	BSc Hons Physics with Teaching	4	12:30 – 12:45pm	Erling Riis, Kevin O'Donnell
John McLean	Energy Transfer as a Nanoscale Ruler	BSc Hons Physics with Teaching	4	12:45 – 1:00pm	Yu Chen, Olaf Rolinski
Kyle Bryson	Renormalization of Alloys	BSc Hons Physics	4	1:00 – 1:15pm	Ben Hourahine, Gian-Luca Oppo
Nicola Connelly	Modifying Melanin's Structure	BSc Hons Physics	4	1:15 – 1:30pm	David Birch, Jens Sutter
Alastair Davy	Modifying Melanin's Structure	MPhys Physics	4	1:30 – 1:45pm	David Birch, Jens Sutter
Stephanie Crosthwaite	Effects of Alcohols on Stabilization and Bundle Formation of Carbon Nanotubes in Aqueous Dispersions Stabilized by Surfactants	BSc Hons Mathematics and Physics	4	1:45 – 2:00pm	Maxim Fedorov, David Birch
Callum Shanks	Effects of Salts (Inorganic, Organic and Ionic Liquids) on Stabilization and Bundle Formation of Carbon Nanotubes in Liquid Dispersions	MPhys Physics	4	2:00 – 2:15pm	Maxim Fedorov, Neil Hunt
Sean O'Connor	Molecular Mechanisms of Biological Adaptation to Extreme Ionic Environments	BSc Hons Mathematics and Physics	4	2:30 – 2:45pm	Maxim Fedorov, Neil Hunt, David Palmer
Kelly Thomson	The effects of salt on the structure and dynamics of biomolecules	MPhys Physics	4	2:45 – 3:00pm	Maxim Fedorov, Neil Hunt, David Palmer
Stephen Howorth	The Physics of DNA	MPhys Physics	4	3:00 – 3:15pm	Neil Hunt, Katrin Adamczyk, Glenn Burley
Amy Black	A Physical Investigation of Protein-drug Binding	BSc Hons Physics	4	3:15 – 3:30pm	Neil Hunt, Paul Hoskisson
Audrey Gillies	A Physical Investigation of Protein-drug Binding	BSc Hons Physics	4	3:30 – 3:45pm	Neil Hunt, Paul Hoskisson
Holly Little	Fabricating Amyloid Functional Materials for Artificial Photosynthesis	BSc Hons Physics	4	4:00 – 4:15pm	Olaf Rolinski, Yu Chen
Damien McLaughlin	Intrinsic Fluorophores in Sensing Applications	MPhys Physics	4	4:15 – 4:30pm	Olaf Rolinski, Yu Chen
Robbie Gordon	Optical Properties of ZnO Powder Doped with Lanthanide and Transition-metal Ions	BSc Hons Physics	4	4:30 – 4:45pm	Tom Han, Olaf Rolinski
Brian Chapman	Optical Properties of Nanoparticles	BSc Hons Physics	4	4:45 – 5:00pm	Yu Chen, Olaf Rolinski

27th March 2013

Chairman: Dr Adrian Cross, Col 4.30

Student	Project	Degree	Year	Time	Supervisors
Hannah Currie	Radiation Reaction	MPhys Physics	4	1:00 – 1:15pm	Dino Jaroszynski, Adam Noble
Adam Mackie	Laser Wakefield Acceleration and Betatron Gamma Ray Radiation	BSc Hons Physics	4	1:15 – 1:30pm	Dino Jaroszynski, Ranaul Islam
Megan Clark	Radiotherapy using Beams from Laser-plasma Accelerators	BSc Hons Mathematics and Physics	4	1:30 – 1:45pm	Dino Jaroszynski, Silvia Cipiccia
Caitlin Flynn	Radiotherapy using Beams from Laser-plasma Accelerators	BSc Hons Physics	4	1:45 – 2:00pm	Dino Jaroszynski, Silvia Cipiccia
Thomas Duffy	Sweep Frequency Microwave Pulse Compression using a Helically Corrugated Waveguide	BSc Hons Physics	4	2:00 – 2:15pm	Kevin Ronald, Wenlong He
Andrew Quinn	High Energy Ion Acceleration in Intense Laser-plasma Interactions	BSc Hons Physics	4	2:30 – 2:45pm	Paul McKenna, Ross Gray
Julia Souter	Ocean Colour Radiometry – Data Processing and Image Interpretation	MPhys Physics	4	2:45 – 3:00pm	Alex Cunningham, David McKee
Christopher McLaughlin	Quantitative Hyperspectral Beam Attenuation Meter	MPhys Physics	4	3:00 – 3:15pm	David McKee, Alex Cunningham
Paul Quinn	Understanding the Optics of Marine Diatoms	BSc Hons Physics	4	3:15 – 3:30pm	Ben Hourahine, Francesco Papoff, Alex Cunningham
William Munnoch	Colour Digital Photography	MPhys Physics	4	3:30 – 3:45pm	Daniel Oi, Ben Hourahine
Isabel Pennock	Does D-Wave really have a Quantum Computer?	BSc Hons Physics	4	4:00 – 4:15pm	John Jeffers, Daniel Oi
Lisa Blair	Quantum Cascade Laser Sensing of Gaseous Isotopes	MPhys Physics	4	4:15 – 4:30pm	Nigel Langford, Geoff Duxbury
Steven Drennan	Resonant and Non-resonant Optical Cavities	BSc Hons Physics	4	4:30 – 4:45pm	Nigel Langford, Geoff Duxbury
Andrew Watt	Quantum Cascade Laser Sensing of Gaseous Isotopes	MPhys Physics	4	4:45 – 5:00pm	Nigel Langford, Geoff Duxbury