

Part II Project Talks 2017

Thursday 4 May and Friday 5 May 2017 (Week 2, Trinity Term)
Hume-Rothery Lecture Theatre

Time	Student	College	Supervisor	Title of Talk
Thurs 4 May				
9.45	Coffee and pastries HR Meeting Room (Judges only)			
10.15	Introduction: Prof. Keyna O'Reilly			
10.30	1 Sorcha Botwright	QNS	HEA	How charge interactions influence peptide hydrogel structures
10.45	2 Ashley Sim	QNS	HEA	Characterisation of Gas-Barrier Films: The Calcium Test
11.00	3 Xiewen (Steven) Liu	STC	Prof Caffarel (MIT) /HEA	Dissolvable Polymer Microneedles for Drug Delivery in Oral Cavity
11.15	4 Ella Carlsen-O'Connor	CCC	SCS/CRMG	Persistent mode joints between high temperature superconducting wires
11.30	5 Christopher Woodman	STA	SCS/CRMG	Magnesium Diboride Materials for Prototype Benchtop MRI Instruments
11.45	6 Nicholas Byrne	STA	SCS/CRMG	The production of superconducting thin films
12.00	Lunch (JUDGES ONLY: St Edmund Hall)			
14.00	7 Megan Carter	SEH	PAJB/MPM/Shollock	Atom Probe Tomography of Aluminum Alloys for Automotive Applications
14.15	8 Eleanor Crossley	SEH	MPM/PAJB	Characterisation of austenite within Carbide Free Bainitic Steel using Atom Probe Tomography
14.30	9 Ruiwen (River) Li	STC	JTC	IPN scaffolds for Brain repair
14.45	10 Miles Partridge	CCC	MP/PGB	Phosphorus as an Anode for Sodium Ion Batteries
15.00	11 Anna MacDonald	TRI	MP/PGB	Next generation solid-state battery electrolytes
15.15	12 Axel Forssberg	STA	Prof Yang Shao-Horn (MIT)/PGB	The Influence of Lattice Dynamics on Anionic Redox for Li-Ion Batteries
15.30	Tea/Coffee (Hume-Rothery Foyer)			
15.45	13 Xinlei (Ted) Liu	SEH	FG/Filip	Computational modelling of metal halide double perovskites
16.00	14 Victoria Cartwright	SEH	PDN/DEJA	Detecting edge displacements associated with screw dislocations in bcc metals using transmission electron microscopy
16.15	16 Marcus Cohen	CCC	PRW	Novel photon capture methods for polycrystalline silicon solar cells
16.30	17 Eleanor Shaw	SEH	PRW/Hamer	Saw Damage Gettering in Multi-Crystalline Silicon
16.45	18 Luke Dent	SEH	RIT/Bonilla/PRW	Flash sintering of Zirconia
17.00	19 Shiyun (Shawn) Liu	STA	PRW/Bonilla	An investigation of the effect of charge at a silicon/silicon dioxide interface

Time	Student	College	Supervisor	Title of Talk
Friday 5 May				
09.00 Coffee & pastries HR meeting room (Judges only)				
09.30	20 Denis Zaboronsky	TRI	DMC/Tarleton	Modelling steel crystal deformation using finite element techniques
09.45	21 Tinger Wen	MAN	AJW/Gong	Ultrasonic Microscale Fatigue Testing
10.00	22 Stephen Turrell	STC	DEJA/AJW	High entropy alloys for extreme environments
10.15	23 Tabitha Jones	MAN	MRC/Murugappan	Conducting Polymer Percolation Networks for Gas Sensing
10.30	24 Zhuoran (Roger) Fang	TRI	Prof Hu, MIT/HB	Electrical and Thermal Switching of Novel Phase Change films
10.45	25 Takashi Lawson	SEH	HB/Rios	Fabrication of nanoscale optoelectronic devices based on Ge ₂ Sb ₂ Te ₅
11.00	26 Matthew Robson	STA	NG	How to Stay Cool: Improving Coolants for Formula 1
11.15 Coffee (Hume-Rothery Foyer)				
11.30	27 Bethan Murray	CCC	RIT	Cyclic fatigue of zirconia ceramics
11.45	28 David Windmill	CCC	RIT	Failure of armour ceramics in compression
12.00	29 Harry MacPherson	TRI	KP	N@C60 - An Incarcerated Radical for Quantum Computing
12.15	30 Lova (Lev) Chechik	MAN	TJM	3D observation of interlaminar crack propagation in a carbon fibre-epoxy composite
12.30	30 James Zhou	MAN	Perkin/KP	Investigating the Anomalous Capacitance Maximum of the Glassy Carbon-Ionic Liquid interface
12.45	31 Rusheb Shah	MAN	RJN/JRY	Predicting Crystal Structures of YO Nanoparticles in ODS Steels
13.00	Judging (Hume-Rothery Meeting Room)			
13.30	Lunch (Hume-Rothery Meeting Room Judges only)			