

# RAMS 2017 Programme

## Day 1 – Monday, 11<sup>th</sup> of September 2017

Time	Event
09:00 - 10:30	Registration, coffee and vendor exhibitions
10:30 - 10:45	Introduction to RAMS 2017 - <i>Prof Paul Reynolds</i>
10:45 - 11:45	<b>Session 1: Understanding and characterising materials</b> <i>Chair: Ana Neves</i>
10:45 - 11:00	OP1: Tim Dodwell (University of Exeter) <i>dune-composites – A New Framework for High Performance Finite Element Modelling of Composites</i>
11:00 - 11:15	OP2: Caroline Knapp (University College London) <i>Designer Precursors for Metallic Patterning</i>
11:15 - 11:30	OP3: Nicholas Bristowe (University of Kent) <i>The improper way to design novel multiferroics</i>
11:30 - 11:45	OP4: Eric Prestat (University of Manchester) <i>Advanced Transmission Electron Microscopy study of carbon-doped Ge<sub>3</sub>Mn<sub>5</sub> layers for spin injection</i>
11:45 - 12:15	<b>Plenary Lecture 1:</b> Prof Harish Bhaskaran (University of Oxford) <i>Photonics devices for emerging computation</i>
12:15 - 13:15	Posters, Lunch, vendor exhibitions and networking
13:15 - 14:15	<b>Session 2: Two-dimensional materials and their applications</b> <i>Chair: Prof Harish Bhaskaran</i>
13:15 - 13:30	OP5: Arseny Alexeev (University of Exeter) <i>Fabrication of large-area CVD graphene based devices via selective in situ O<sub>2</sub> plasma functionalization and patterning</i>
13:30 - 13:45	OP6: David Lewis (University of Manchester) <i>Facile Routes to a Range of Two-dimensional Materials Beyond Graphene</i>
13:45 - 14:00	OP7: Nicola Townsend (University of Exeter) <i>Conduction impedance effects in atomically thin materials</i>
14:00 - 14:15	OP8: Iorwerth Thomas (University of Exeter) <i>Anharmonic and dimensional effects on lattice thermal transport in Si, Ge and MoS<sub>2</sub></i>
14:15 - 14:45	<b>Plenary Lecture 2:</b> Prof Lindsay Greer (University of Cambridge) <i>Metallic Glasses: extending the range of the glassy state</i>
14:45 - 15:45	Main poster session, coffee, vendor exhibitions and networking
15:45 - 16:45	<b>Session 3: Medical and biological applications of materials</b> <i>Chair: Prof Lindsay Greer</i>
15:45 - 16:00	OP9: Gemma-Louise Davies (University College London) <i>Designing Negative MRI Contrast Agents</i>
16:00 - 16:15	OP10: Pramod Kumar (University of Exeter) <i>Natural Photonic Structures on Insect Wings: Enabling Sustainable multi-functionality for Biomimetic Application</i>
16:15 - 16:30	OP11: Nicola Irwin (Queen's University Belfast) <i>Novel Coating Technology for the Prevention of Catheter Blockages</i>
16:30 - 16:45	OP12: Charlie Jeynes (University of Exeter) <i>A gold nanoparticle probe to measure ageing in human cells</i>
16:45 - 17:15	<b>Plenary Lecture 3:</b> Prof Molly Stevens (Imperial College London) <i>Bio-responsive hybrid materials for regenerative medicine and biosensing</i>
17:15 - 18:15	<b>Panel Discussion 1: Careers and Research Group Management</b> Panel: Prof Harish Bhaskaran, Prof Lindsay Greer, Prof Molly Stevens Moderator: Steven Hepplestone
19:30	<b>Conference Dinner</b> (reception from 19:00) Rougemont Hotel, Queen Street, EX4 3SP (close to Exeter Central train station)

## Day 2 – Tuesday, 12<sup>th</sup> of September 2017

Time	Event
08:30 - 09:00	Coffee and vendor exhibitions
09:00 - 10:30	<b>Session 1: Optimising materials for devices</b> <i>Chair: Arseny Alexeev</i>
09:00 - 09:15	OP13: Enrico Berardo (Imperial College London) <i>Accelerating materials' discovery with evolutionary algorithms in chemistry</i>
09:15 - 09:30	OP14: Reinhard Maurer (University of Warwick) <i>Computational design of functional hybrid organic-inorganic interfaces: From single molecule to surface self-assembly</i>
09:30 - 09:45	OP15: Moritz Kuehnell (University of Cambridge / University of Swansea) <i>Quantum dot surface engineering for photocatalytic syngas generation</i>
09:45 - 10:00	OP16: Lethy Krishnan Jagadamma (University of St. Andrews) <i>Triptycene as an Additive for the Enhancement of Polymer Solar Cells</i>
10:00 - 10:15	OP17: Paschal Okafor (Teesside University) <i>One step synthesis of phenolic resins using fructose as aldehyde source in deep eutectic solvents</i>
10:15 - 10:30	OP18: Frederic Brossard (Hitachi Cambridge Laboratory) <i>Inkjet printed nanocavities on a photonic crystal template</i>
10:30 - 11:00	Posters, coffee, vendor exhibitions and networking
11:00 - 11:40	<b>Session 2: Metamaterials</b> (sponsored by the EPSRC CDT for Metamaterials) <i>Chair: Isaac Luxmoore</i>
11:00 - 11:15	OP19: CDT Metamaterials speaker: Lauren Barr (University of Exeter) <i>On the Nature of Chiral Near-Field Interactions in Metamaterials</i>
11:15 - 11:45	<b>Plenary Lecture 4:</b> Dr Jensen Li (University of Birmingham) <i>Spin-enabled optics with metamaterials and metasurfaces</i>
11:45 - 12:45	<b>Session 3: Porous materials for nanostructuring</b> <i>Chair: Prof Steven Dunn</i>
11:45 - 12:00	OP20: Samantha Soule (University of Southampton) <i>Understanding the surface chemistry and grafting behaviour of porous materials by a surface science approach</i>
12:00 - 12:15	OP21: Oliver Fenwick (Queen Mary University of London) <i>Highly luminescent silver clusters stabilised in zeolites</i>
12:15 - 12:30	OP22: John Griffin (University of Lancaster) <i>Studying Ion Behaviour in Porous Carbon Electrodes using NMR Spectroscopy</i>
12:30 - 12:45	OP23: Rob Evans (Aston University) <i>NMR Characterisation of Catalytic Silica Supports</i>
12:45 - 13:45	Posters, lunch, vendor exhibitions and networking
13:45 - 14:15	<b>Plenary Lecture 5:</b> Prof Steven Dunn (Deregallera Ltd) <i>TBA</i>
14:15 - 15:00	<b>Session 3: Fabrication of porous materials</b> <i>Chair: Dr Jensen Li</i>
14:15 - 14:30	OP24: Xuebin Ke (University of Hull) <i>Oil-water interface synthesis of ZIF-8 crystals of rods, delta, plates &amp; particulates</i>
14:30 - 14:45	OP25: Lola Ola (University of Exeter) <i>Melamine-Derived Carbon Composites for Thermal Energy Storage</i>
14:45 - 15:00	OP26: Victoria Garcia Rocha (Cardiff University) <i>Engineering and processing chemically modified graphene into 3D structures: towards real applications</i>
15:00 - 15:30	Posters, coffee, vendor exhibitions and networking
15:30 - 16:30	<b>Panel Discussion 2: Funding and Impact</b> Panel: Dr Jensen Li, Prof Steven Dunn, Prof Nick Talbot, Dr Ellen Meek, Mr Shay Sigafos Moderator: Anna Baldycheva
16:30	Closing remarks - Ana Neves