



**2016 CONFERENCE ON EVERYTHING**  
**CHURCHILL COLLEGE, UNIVERSITY OF CAMBRIDGE**  
23<sup>rd</sup> April- Fellow's Dining Room, Cockcroft Room



**PROGRAMME**

- 13.00 **Registration**- SCR Corridor
- 13:30 **Plenary Talk**- Fellow's Dining Room  
Dr Ramsey Faragher
- 14.15 **Break**
- 14.25 **Talk Session 1**- Fellow's Dining Room  
Dark Energy...70% of our Universe is WHAT?!  
Sonke Hee  
The Sustainability of Metal Resources: A Geochemically-analogous  
Recycling Route and its Implications  
Zhiyuan James Ou  
Reaction Engineering Concepts for Selectivity Improvement in Partial  
Oxidation of Hydrocarbons  
Sam Aworinde  
Envisioning the Future of Urban Transport Infrastructure Systems  
Bingyu Zhao  
Palladium-catalysed C-H Activation Reaction: Computation Screening of  
Reactivity and Process Viability  
Liwei Cao
- 15.25 **Poster Exhibition 1**- Cockcroft Room *refreshments will be served*
- 16.00 **Talk Session 2**- Fellow's Dining Room  
The All-Solid-State-Battery  
Jack Hodgkinson  
Porous Materials for Advanced Drug Delivery  
Sophie Miller  
Compressive Sensing  
Alex Bastounis  
Meeting Today's Energy Demands: How Gallium Nitride Could Help  
Power the World!  
Nikita Hari  
CO<sub>2</sub> Reduction is Not Enough: Trapping Atmospheric Carbon in the  
Ground Using Charcoal  
Jacob Martin
- 17.00 **Break**
- 17.10 **Talk Session 3**- Fellow's Dining Room  
Realistic Resonances: Applying Spectral Ideals to Acoustic Composition  
Alex Tay  
Trauma, Memory and Shame: Gender Discourse in Contemporary  
German Family Novels  
Lucy Tallentire

Harnessing Brain Physiology to Improve Care after Severe Traumatic  
Brain Injury

Joseph Donnelly

Understanding the Brain with Complex Network Theory

Max Shinn

18.00 **Poster Exhibition 2**- Cockcroft Room *cheese and wine will be served*

18.35 **Closing Address**

*Prizes will be awarded at the Advanced Students' Dinner.*

## **Poster Exhibitions**

*Judged at 15.30 & 18.00*

The Sustainability of Metal Resources: A Geochemically-analogous Recycling  
Route and its Implications

Zhiyuan James Ou

A Real Options Model for Sustainability Evaluation

Rafael Quezada Gaete

Greener Pervious Concrete Using Functionalised Activated Carbon

Heba Hamad

Investigation of the Vertical Soil-Pipe Interaction of Pipelines Buried in Sandy  
Seabed

Hasini Mallikarachchi

*TBC*

Claire Malone

Quantifying the 'Implementation Gap' for Antifouling Coatings in Heat  
Exchangers

Ole Mathis Mogens

Network Guarantees for Multi-Tenant Datacentres

Diana Popescu

Aerodynamic Issues in Low Pressure Steam Turbine Exhaust Systems

Bowen Ding

Carbon Nanomaterials Innovation Management and Barriers to  
Commercialisation

Gemma Siddall

Biosynthesis of Oxazole Antibiotics in Bacteria

Karen Chan

## **Acknowledgements**

Special thanks go out to Shelley Surtees, Carol Robinson, Jill Hay, Naomi Morris, Chris Cummins & AV Team, Dr Ramsey Faragher, Dr Justin Palfreyman, David White & Schlumberger, Dame Athene Donald, Dr Steven Marsh, Clara Tang, Sonke Hee, MCR Committee Volunteers, Cambridge Trophy and Engraving Centre, and PLAN-IT Reprographics Ltd.