



UK METAMATERIALS NETWORK CONFERENCE 2023

SCHEDULE

11 – 15 June 2023

Wotton House, Guildford Rd, Dorking, RH5 6HS

Sunday 11 June 2023

- > Arrival from 4 pm
- ➤ Registration between 5 6 pm and 8 9 pm (in front of Evelyn Suites)
- ➤ Showcase material setup (posters, demonstrators) Group A: 8 9 pm (in Evelyn Suites)
 - ➤ Dinner in the Restaurant 6 9.30 pm

Registration times throughout the week

Monday/Tuesday 8.30-10 am and 4.30 – 6pm

Wednesday 8.30 - 10 am

See further details in the Conference Booklet.

Showcase material setup times

Group A Sunday evening 8 – 9 pm, Monday 5.30 – 6 pm | **Group B** Tuesday 8.15 – 9 am, 5.30 – 6 pm

See further details in the Conference Booklet.

Monday 12 June 2023

time	Sessions	Speaker
09:00 - 10:00	 Welcome Update on the Network Activities and Future Plans; Conference practicalities; Update on Metamaterials Definition 	Prof Alastair Hibbins (University of Exeter) Dr Claire Dancer (University of Warwick)
10:00 - 10:30	Metamaterials for Health 1. Introduction 2. Healthcare theme	Dr Tom Allen (Manchester Metropolitan University) Dr Calum Williams (University of Cambridge)
10:30 - 11:00	BREAK	
11:00 - 12:00	Keynote talk: Metamaterials for Healthcare	Prof Amir Zadpoor (Delft University of Technology)
12:00 - 12:45	Round table discussions: Opportunities for MM in Healthcare	Chair: Dr Calum Williams (University of Cambridge)
12:45 - 14:15	LUNCH BREAK (in the restaurant)	
14:15 - 15:30	Metamaterials for Healthy Living 1. Healthy living theme introduction 2. Key note talk: Healthy living	1. Dr Oliver Duncan (Manchester Metropolitan University) 2. Marc Douglas (World Rugby)
15:30 - 16:00	BREAK	
16:00 - 16:50	Round table discussions: Opportunities for MM in Healthy Living	<u>Chair:</u> Dr Oliver Duncan (Manchester Metropolitan University)
16:50 - 17:00	Summary & close	Dr Tom Allen (Manchester Metropolitan University)
18:30 - 21:00	Dinner & showcase session in & around the Evelyn Suites	

Tuesday 13 June 2023

time	Sessions	Speaker
09:00 - 09:10	Metamaterials for Space: Introduction	Dr Simon Pope (University of Sheffield)
09:10 - 10:30	Current status and future direction of the Space sector 1. "Metamaterials in Space: Exploring the UK Landscape, Challenges, Opportunities, and Perspectives" 2. "Metamaterials and The Space Environment"	Chair: Prof Alastair Hibbins (University of Exeter) 1. Dr Mauro Augelli (UK Space Agency) 2. Dr Gemma Attrill (Dstl)
10:30 - 11:00	BREAK	
11:00 - 11:45	Opportunities for metamaterials in the space sector 3. "UK civil space technology roadmap and the opportunities and challenges for materials" 4. "Design and Manufacturing of Transparent Antennas for Satellite Communications"	Chair: Prof Alastair Hibbins (University of Exeter) 3. Dr Neelam Mughal (Innovate UK) 4. Dr Themos Kallos (META)
11:45 - 12:30 12:30 - 14:00	Round table discussions: MM for Space Application Opportunities Chair: Dr Simon Pope (University of Sheffield) LUNCH BREAK (in the restaurant)	
14:00 - 14:45	Idea formulation and development of projects for metamaterials in Space Tutorials 1. "Structural Metamaterials for frequency control and vibration mitigation during launch" 2. "Metamaterial antennas challenges and opportunities for space applications" 3. "Metamaterials for spacecraft thermal control" 4. "Metamaterials for optical communication and imaging, opportunities and challenges"	Chair: Dr Simon Pope (University of Sheffield) 1. Prof Matthew Santer (Imperial College London) 2. Prof Will Whittow (Loughborough University) 3. Dr Kai Sun (University of Southampton) 4. Dr Sebastian Schulz (University of St Andrews)
14:45 - 15:45	Round table discussions: Project development	Chair: Dr Simon Pope (University of Sheffield)
15:45- 16:15	BREAK	

Tuesday 13 June 2023 (continued)

time	Sessions	Speaker
16:15 - 16:45	Project development summaries & ideas sharing	Chair: Dr Simon Pope (University of Sheffield)
16:45 - 17:00	Summary & close	Dr Simon Pope (University of Sheffield)
17:00 - 17:20	Group photo (gather in the conference room to be guided to the group photo spot)	
18:30 - 21:00	Dinner & showcase session in & around the Evelyn Suites	

Wednesday 14 June 2023 (Morning session)

time	Sessions	Speaker
09:00 - 09:05	Metamaterials for Sustainability: Introduction	Dr Katie Shanks (University of Exeter)
09:05 - 10:30	10 minutes talk series 1. "Towards a tipping point in engineering culture" 2. "Environmentally Sustainable Materials" 3. "Tackling global issues as an academic" 4. "Thermochromics and phase-change technologies for sustainable photonics" 5. "Metaplasmonics for Net-Zero" 6. "Opportunities for Metamaterials in optics for Solar Energy"	Chair: Dr Claire Dancer (University of Warwick) 1. John Kraus (Engineers Without Borders) 2. Dr Zaffie Cox (EPSRC) 3. Dr Raphaëlle Haywood (University of Exeter) 4. Prof Otto Muskens (University of Southampton) 5. Prof Anatoly Zayats (King's College London) 6. Dr Katie Shanks (University of Exeter)
10:30 - 11:00	BREAK	
11:00 - 11.45	10 minutes talk series (Exemplars) 7. "Metamaterials for Wave Energy Harvesting'" 8. "Heat transport in 3D nanostructured metamaterials" 9. "Non-volatile magnetic components for low-loss electronics and photonics"	7. Prof Deborah Greaves (University of Plymouth) 8. Dr Iris Nandhakumar (University of Southampton) 9. Prof Robert J. Hicken (University of Exeter)
11:45 - 12:30	Round table discussions: Moonshots for Sustainability focused metamaterials	<u>Chair:</u> Dr Katie Shanks (University of Exeter)
12:30 - 14:00	LUNCH BREAK (in the restaurant)	

Wednesday 14 June 2023 (Afternoon session)

time	Sessions	Speaker
14:00 - 14:10	Commercialising Metamaterials: Introduction	Dr Arseny Alexeev (Snap)
14:10 - 14:40 14:40 - 15:30	Talk series 1. Pathways into commercialising research 2. Introductions to DASA, Ploughshare, and the Space Applications Catapult	<u>Chair:</u> Tom Bassett (MBDA) 1. Dr Bruno Reynolds (Oxentia) 2a. Paul Alderton (DASA) 2b. Dr Sandy Fisher John (Ploughshare)
	(Q&A after break)	2c. Paul Fevbre (SA Catapult)
15:30 - 16:00	BREAK	
16:00 - 16:45	Panel session & Q&A	<u>Chair:</u> Prof Christopher Tuck (University of Nottingham) Speakers as above; Prof Chris Stevens (Imperial College London); Dr Themos Kallos (META)
16:45 - 17:00	Conference summary & close	Prof Alastair Hibbins (University of Exeter)
19:00 - 23:00	Gala Dinner in the Evelyn Suites	

Thursday 15 June 2023
Departure after breakfast



UK METAMATERIALS NETWORK CONFERENCE 2023

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SPONSORSHIP

The UK Metamaterials Network Conference 2023 is kindly sponsored by the Engineering and Physical Sciences Research Council (EPSRC) and the Defence Science and Technology Laboratory (Dstl).







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