

Optics + Ultrasound VII
Programme

Thursday 5 th September	
10:00 - 10:30	Registration and Coffee
	Morning Session I - NDE
10:30 - 11:30	Invited Talk: Laser excitation of GPa surface acoustic waves in the non-destructive regime Thomas Pezeril, CNRS, France
11:30 - 11:50	Reverse time migration for composite material imaging involving ultrasonic ray curvatures Ms Lily Tu, University of Bristol
11:50 - 12:10	Scattering-based Defect Characterization using Laser Ultrasound Arrays Dr Peter Lukacs, University of Strathclyde
12:10 - 1:30	Poster Session & Lunch
	Afternoon Session I - Novel Instrumentation and Methods
1:30 - 2:30	Invited Talk: Manipulation of Laser-Generated Hypersonic Beams Using Spatial Light Modulation Tony Kent, University of Nottingham
2:30 - 2:50	Quantum microwave to optical transduction on a novel material platform (ScAlN on Silicon on Sapphire). Mr James Cockburn, University of Bristol
2:50 - 3:10	Acoustic oscillations of a THz Quantum Cascade Laser device Dr James Bailey, University of Nottingham
3:10 - 3:30	Optically Controllable Phased Array for Programmable Ultrasound Wavefronts Mr Rahul Goyal, Max Planck Institute for Medical Research, Germany
3:30 - 4:00	Coffee break

	Afternoon Session II – NDE and Novel Instrumentation Methods
4:20 – 4:40	Laser Generated Guided Ultrasound for Surface Breaking Crack Detection on Thin-walled Austenitic Stainless Steel Cylindrical Rods with Periodic Ribbed Structures Dr Geo Davis, University of Strathclyde
4:40 – 5:00	Generating and Detecting Superoscillations Mr Monty Clark, University of Nottingham
5:00 – 5:20	A Robust Algorithm for an Incoherent Image Reconstruction through a Strongly Scattering Medium Dr Jakub Bělín, CEITEC - Central European Institute of Technology, Czech Republic
5:20 onwards	Networking with buffet and drinks
Friday 6th September	
09:30 – 10.00	Registration
	Morning Session – Biomedical I
10:00 – 11:00	Invited Talk: Multispectral imaging for early cancer detection Sarah Bohndiek, University of Cambridge
11:00 – 11.20	Fibre-Optic Side-Viewing Ultrasound Transmitters with Customisable Ultrasound Field Direction through Laser Cutting Dr Semyon Bodian, UCL
11:20 – 11:40	Optical Ultrasound Platform for Endobronchial Imaging Mr Shaoyan Zhang, UCL
11:40 – 12:00	Endoluminal-Scale Optical Ultrasound Imaging Probe for Improved Real-time Optical Ultrasound Imaging Mr Fraser Watt, UCL
12:00 – 12:20	Photoacoustic Memory Imaging: Calibration-free optical resolution imaging through strongly scattering layers Benjamin Keenlyside, University of Birmingham
12:20 – 1:30	Lunch

1:30 – 1:40	Advanced Research and Invention Agency (ARIA)
	Afternoon Session I– Biomedical II
1:40 – 2.40	Invited Talk: Kareem Elsayad, Medical University of Vienna, Austria Studying dynamic structure in biological matter using Brillouin light scattering microspectroscopy
2:40 – 3:00	Acoustic Levitators Integrated with Optical Detection for Parallelised Chemical Reactions and Bioassays Dr Ruchi Gupta, University of Birmingham
3:00 – 3:20	Recent developments in elasticity sensing and imaging using Phonon microscopy Mengting Yao, University of Nottingham
	Afternoon Session II – NDE II
3:20 – 3:40	Ultrasonic Manipulation of Powder Particles for Microgravity Powder-Based Additive Manufacturing (PBAM) Anushanth Karalasingam, University of Edinburgh
3:40 -- 4:00	A methodology for large area inspection using reconfigurable Laser Induced Phased Arrays. Dr Don Pieris, University of Strathclyde
4:00 – 4:20	Using surface acoustic waves to image elasticity on metals Matt Clark, University of Nottingham
4:20 – 4:30	Final address and Close

Posters

Wide-field Non-contact optical detection method for Fast Medical Ultrasound Imaging
Ms. Aline Buat, Imperial College London

Designing Optical Ultrasound Sensors to Acoustically Monitor Proton Therapy Beams
Ms Catherine Burne, University of Birmingham

Cancer detection via physically interpretable neural networks of phonon microscopic ultrasound data
Amy Zheng, University of Nottingham

Lensing of Coherent Phonons in Pump-Probe Experiments
Khouloud Sellami, University of Nottingham