

## Optics + Ultrasound V

Monday 12 September 2022

10am - 10:30am	<b>Registration and Refreshments</b>
	<b>Morning Session: NDE &amp; Materials I</b>
10:30am - 11:30am	Exploring Irradiation-Induced Property Change in Fusion Reactor Materials using Laser-Induced Transient Grating Spectroscopy <b>Invited Talk: Felix Hofmann</b>
11:30am - 11:45am	Optimization of Laser Adhesion Test of titanium/composite bonding by beam shaping <b>Mr Mathieu Ducousso</b>
11:45am - 12pm	Characterizing elasticity of NiTi epitaxial thin film by transient grating spectroscopy <b>Tomas Grabec</b>
12pm - 12:15pm	Laser-ultrasonic monitoring of elastic parameters of aluminium alloy sheets during natural aging using zero-group-velocity resonances <b>Georg Watzl</b>
12:15pm - 12:30pm	SRAS++: single-crystal elasticity measurements in polycrystalline materials <b>Dr Paul Dryburgh</b>
12:30pm - 1:30pm	<b>Lunch and Poster Session</b>
	<b>Afternoon Session: Novel Instrumentation and Methods</b>
1:30pm - 2:30pm	Projecting pressure images with acoustic holography <b>Invited Talk: Peer Fischer</b>
2:30pm - 2:45pm	Liquid crystal sensors for ultrasonic displacement measurements <b>Martha Turvey</b>
2:45pm - 3pm	A practical measurement procedure used for a laser induced ultrasound system <b>Jun Li</b>
3pm - 3:30pm	<b>Afternoon Break</b>
	<b>Afternoon Session: NDE &amp; Materials II</b>
3:30pm - 3:45pm	Characterization of Strongly Anisotropic Materials by Transient Grating Spectroscopy <b>Pavla Stoklasová</b>
3:45pm - 4pm	Directivities and relative amplitudes of bulk waves for buried sources at different depths <b>Miss Xin Tu</b>
4pm - 4:15pm	Sizing non-sharp defects using ultrasonic array images <b>Dr Shivaprasad Shridhara Bhat</b>
4:15pm - 4:30pm	Phased array design for grating lobe suppression in Laser Induced Phased Arrays (LIPA) <b>Mr Peter Lukacs</b>
4:30pm - 4:45pm	Towards inline material microstructure imaging using spatially resolved acoustic spectroscopy (SRAS) <b>Dr Rikesh Patel</b>
4:45pm - 7pm	<b>Networking with Buffet and Drinks</b>

## Tuesday 13 September 2022

9am - 9:30am	<b>Registration</b>
	<b>Morning Session: Physical and Ultrafast acoustics</b>
9:30am - 10:30am	Laser Ultrasound: a perfect tool to observe Zero Group Velocity and Backward Guided Elastic Waves <b>Invited Talk: Clare Prada</b>
10:30am - 10:45am	Acoustic Super oscillations: Enhancing the Resolution of Laser Ultrasonics <b>Prof Anthony Kent</b>
10:45am - 11am	Picosecond ultrasonics of two-dimensional nanolayers <b>Mrs Wenjing Yan</b>
11am - 11:15am	<b>Morning Break</b>
	<b>Morning Session: Ultrafast and Photoacoustics</b>
	<b>Ultrafast</b>
11:15am - 11:30am	Polarisation-sensitive super-resolution phononic reconstruction of nanostructures <b>Dr Rafael Fuentes Dominguez</b>
11:30am - 11:45am	Development of GHz optoacoustic lenses for sub-optical resolution imaging <b>Mengting Yao</b>
11:45am – 12pm	3D phononic endo-microscopy of biological matter <b>Dr Salvatore LaCavera III</b>
	<b>Photoacoustics</b>
12pm - 12:15pm	All-optical photoacoustic endomicroscopy needle probe for optical biopsy <b>Tianrui Zhao</b>
12:15pm - 12:30pm	Noise reduction in LED-based photoacoustic imaging with spatiotemporal singular value decomposition <b>Mengjie Shi</b>
12:30pm - 1:30pm	<b>Lunch and Poster Session</b>
	<b>Afternoon Session: Biomedical I</b>
1:30pm - 2.30pm	Optical Ultrasound (OpUS) Imaging for Guiding Minimally Invasive Procedures <b>Invited Talk: Adrien Desjardin</b>
2:30pm - 2:45pm	Characterising biomechanics of the limbal niche using vibrational optical coherence elastography (OCE) <b>Mr Yilong Zhang</b>
2:45pm - 3pm	Real-Time Ultrasonic Needle Tip Tracking with an Integrated Fibre-optic Hydrophone <b>Dr Christian Baker</b>
3pm - 3:30pm	<b>Afternoon Break</b>
	<b>Afternoon Session: Biomedical II</b>
3:30pm - 3:45pm	Real-time, minimally invasive optical ultrasound imaging of cardiovascular anatomy <b>Mr Robert Stafford-Williams</b>
3:45pm - 4pm	Whole-Body Small Animal Imaging System <b>Miss Alissa Silva</b>

4pm - 4:15pm	Improving photoacoustic imaging of clinical needles using candle soot nanocomposite coatings <b>Mengjie Shi, Semyon Bodian</b>
4:15pm - 4:30pm	Highly miniaturised ultrasound transducer based on a single dual-clad optical fibre <b>Dr Richard Colchester</b>
4:30pm	<b>Close</b>

<b>Posters sessions Monday and Tuesday lunchtime</b>	
1	Deep Learning Based Automated Defect Recognition for Laser Ultrasonic Imaging <b>Michael Gillespie, Klaudia Zymelka</b>
2	Deep Learning-Based, Laser Ultrasound Tomography of Tissue Mimicking Phantoms <b>Mr. Ahmed Al Fuwaires</b>
3	Detection of HIFU lesions by optical coherence tomography <b>Dr Jason Raymond</b>
4	Investigating Granularity for Reducing Limited Aperture Effects in Photoacoustic Imaging <b>Nat Redgewell</b>
5	Miniature optical-resolution photoacoustic microscopy using transparent ultrasound transducer <b>Kwok Ho Lam</b>
6	Apparent Anisotropic Thermal Diffusivity in Cubic Single Crystals from Transient Grating Spectroscopy <b>Jakub Kušnír</b>
7	A Vision Transformer and Convolution Neural Network-based Competitive Study for assessment of wound healing in Mice <b>Jinpeng Liao</b>
8	Quantifying dimensions of the limbal niche using optical coherence tomography (OCT) <b>Mr Yilong Zhang</b>