

AFPAC Programme

Thursday 22 January 2026

9:00 AM - 9:30 AM	Invited Speaker: Katy Tant , University of Glasgow Ultrasonic Travel-Time Tomography for Approximating the Local Elastic Tensor in Complex Media
9:30 AM - 10:20 AM	Poster Flash Talk Session 9:30 AM - 9:32 AM Xuan Li , University Of Southampton Precision bone surgery with an adhesive-free class IV flextensional transducer 9:32 AM - 9:34 AM Mia Brely Development, control and testing of a serial low intensity pulsed ultrasound (LIPUS) device for cell stimulation 9:34 AM - 9:36 AM Julien Bustillo , INSA Centre Val de Loire Ultrasonic ToF Technique for SoC Estimation in Lilon Batteries 9:36 AM - 9:38 AM Fangyuan Wan , University of Bristol Tomographic Reconstruction of the Internal Grain Structures in Polycrystalline Materials using Full-Waveform Inversion of Ultrasonic Array Data 9:38 AM - 9:40 AM Samuele Martinelli , University Of Strathclyde Optimizing the COMSOL computation for Ultrasonic through-metal communication (UTMC) simulation 9:40 AM - 9:42 AM Michel Darmon , Cea List, University Paris-saclay Fast analytical models for the non-linear scattering of elastic waves at a contact interface 9:42 AM - 9:44 AM Yongxing Cai Statistical Classification of Cracks on Corroded Surfaces in Ultrasound Images 9:44 AM - 9:46 AM Josephine Hoare , University Of Edinburgh The Development of New Tissue Mimicking Materials for the Assessment of Nonlinear Imaging Techniques 9:46 AM - 9:48 AM Tanguy Bertels , Institut Jean le Rond d'Alembert, Sorbonne Université Numerical simulations of elastic wave propagation in solid materials containing a random distribution of spherical particles 9:48 AM - 9:50 AM Nesrine Houhat , INSA centre Val de Loire Experimental monitoring of polyethylene viscosity during rotomolding by ultrasonic nondestructive method 9:50 AM - 9:52 AM Eric Ducasse , Arts et Metiers Institute of Technology, Université Bordeaux Domain decomposition method for coupling semi-analytical form and finite element models of wave propagation: validation and convergence study 9:52 AM - 9:54 AM Sandy Cochran , University of Glasgow High-Frequency Medical Ultrasound Array made with Textured Piezoceramics 9:54 AM - 9:56 AM Paul Dryburgh , King's College London Coherent multi-transducer ultrasound imaging in harmonic mode

	<p>9:56 AM - 9:58 AM Simon Pointeau, Institut Jean le Rond d'Alembert - Sorbonne Université Guided waves in a viscoelastic bilayer structure</p> <p>9:58 AM - 10:00 AM Hasan Koruk, National Physical Laboratory A robust indentation methodology for reproducible characterisation of the mechanical properties of soft materials</p> <p>10:00 AM - 10:02 AM Reza Haqshenas Acoustic Cavitation Classification: A Machine Learning Approach Using Multiple Bubble Dynamics Models and Stability Criteria</p> <p>10:02 AM - 10:04 AM Benson Chen Ultrasound mediated nanodrug delivery for pancreatic cancer</p> <p>10:04 AM - 10:06 AM Alain Lhémery, Université Paris-saclay, Cea-list SH wave imaging with synthetic arrays of magnetostrictive patches</p> <p>10:06 AM - 10:08 AM Dmitrii Nikolaev Dual-liquid acoustic fountain towards creating core-sheath structures</p>
10:20 AM - 11:00 AM	Morning Break and Poster Session
11:00 AM - 1:00 PM	<p>Morning Session 4</p> <p>11:00 AM - 11:12 PM Elias Rabbat, Imperial College London Quantitative Measurement of Defects in Pipes using Guided Wave-based Full Waveform Inversion</p> <p>11:12 AM - 11:24 PM Quentin Baudis, CEA LIST Calibrated and Temperature-Compensated Guided Wave Method for Non-Invasive Liquid Level Measurement</p> <p>11:24 AM - 11:36 PM Daniel Dobrowolski, Cuaa Strengthening the UK Acoustic Technology Pipeline</p> <p>11:36 AM - 11:48 PM Salah Eddine Hebaz, Laboratoire Satie, Cy Cergy Paris Université Nonlinear guided wave propagation analysis for subwavelength damage imaging</p> <p>11:48 AM - 12:00 PM Garance Sauderais, Satie, Cergy Paris Université Multi-mode Tomographic Approach using a Sensor Network for Structural Health Monitoring</p> <p>12:00 AM - 12:12 PM Alverède Simon, ONERA – DMAS Thermoplastic composite adhesion monitoring using pulse-echo ultrasound</p> <p>12:12 AM - 12:24 PM Jordan Barras Improving defect detection of nuclear welds using adaptive imaging based on uncertain material parameters optimization</p> <p>12:24 AM - 12:36 PM Alain Lhémery, Université Paris-saclay, Cea-list From the simulation of guided wave propagation in rolled plates subjected to stress to the tomographic reconstruction of stress distributions</p> <p>12:36 AM - 12:48 PM Konstantinos Kondylidis Theoretical and experimental investigation of elastic wave propagation in a multi-wire cable</p>
1:00 PM - 2:00 PM	Lunch

2:00 PM - 2:30 PM	Invited Speaker: Vitalyi E. Gusev , Le Mans University Generation and detection by lasers of GHz - sub-THz surface, surface skimming and bulk acoustic waves in cleaved superlattices
2:30 PM - 3:45 PM	Afternoon Session 5 2:30 PM - 2:42 PM Parisa Abbasi , University College London Non-Invasive Modulation of Microglia by Focused Ultrasound: Exploring a Potential Therapeutic Pathway for Alzheimer's Disease 2:42 PM - 2:54 PM Navya Nayak , University College London Effect of focused ultrasound on retinal pigment epithelial cells and its application in early dry age-related macular degeneration 2:54 PM - 3:06 PM Qifeng Xia Towards Physiologically Interpretable Acoustic Analysis for Voice-Based Detection of Respiratory Tract Infections (RTIs) 3:06 PM - 3:18 PM Daniel Silva , University College London Therapeutic Ultrasound on Biomimetic Models of Cancer 3:18 PM - 3:30 PM Veerle Brans , University of Oxford Combatting implant-related orthopaedic infections with therapeutic ultrasound and shockwaves 3:30 PM - 3:42 PM Max Au-yeung , University College London Combined Unsupervised Machine Learning and Wavelet Packet Analysis for Characterising Acoustic Cavitation Data
3:45 PM - 4:15 PM	Afternoon Break
4:15 PM - 5:30 PM	Afternoon Session 6 4:15 PM - 4:27 PM Oliver Wright , The University Of Osaka Mining picosecond ultrasonic echoes for information on strain pulses 4:27 PM - 4:39 PM Marion Caumartin , Institut Langevin, ESPCI Paris, Université PSL, CNRS Laser-Based Control of the Acoustic Field 4:39 PM - 4:51 PM Theodosia Stratoudaki , University of Strathclyde Spatially Encoded Ultrasonic Generation for Laser-Induced Phased Array Imaging 4:51 PM - 5:03PM Mohammad Ali Fakhri , University of Bristol Experimental Validation of 2D Laser-Induced Phased Arrays with Poisson-Disk Layouts 5:03 PM - 5:15 PM Samuel Raetz , Laum, Umr 6613, Cnrs, Le Mans Université Three-dimensional mapping of nonhydrostatic pressure in a diamond anvil cell using isotropic mHEMA as the pressure-transmitting medium by time-domain Brillouin scattering
7:00 PM - 10:00 PM	Pre-Dinner Drinks, Talk, Conference Dinner and Ceilidh