Acoustofluidics Forum & Olympics 2019

UK and international research symposium on the fundamentals and applications of acoustofluidic systems, such as bio-sampling, microanalysis, microfluidic diagnosis, filtering and container-less processing.

26th—27th June 2019, Bristol

University of Bristol Bill Brown Suite Queen's Building BS8 1TR, Bristol

PROGRAMME		
Day 1		
10.00 - 10.15	Registration (Coffee and Tea)	
40.45 40.20	D D: I .	
10.15 - 10.30	Bruce Drinkwater	Welcome, safety and intro
10.30 - 11.00	Amanda Franklin	Investigations of low-cost single-beam transducers for acoustic trapping
11.00 - 11.20	Robert Dwyer- Joyce	Ultrasonics and the measurement of lubricants and lubricant properties
11.20- 11.40	Bruce Drinkwater	Holographic acoustic tweezers
11.40 - 12.00	Sam Jackson	Measurement and Simulation of an open-type flexural ultrasonic transducer
12.00 - 13.15	Lunch (with Group Photo)	
13.15 - 13.45	Julien Reboud	Shaping acoustic waves on disposable surfaces – enabling translation of medical devices
13.45 - 14.00	Ali M. Yazdani	Developing a biosensor chip, which is used to separate the circulating tumour cells effectively
14.00 - 14.15	Christian Burton	Acoustics for nano-particle enrichment
14.15 - 14.30	James Armstrong	Engineering Complex Tissues using Acoustic Cell Patterning
14.30 - 14.45	Richard Fu	Towards the wearable acoustofluidics
14.45 - 15.30	Coffee & Demo set up	
15:30-17:30:	Demos and poster section	
18:00-19:30:	Drinks, canapes & Networking in the Terrace	

<u>Day 2</u>		
9.30 - 10.00	Coffee and Tea	
10.00 - 10.30	Rafael Morales	Creating tangible structures for interactive mid-air experiences
10.30 -10.45	Liangfei Tian	Acoustic trapping: an emerging tool in micro-array technologies
10.45 - 11.00	Ran Tao	Droplets manipulation on arbitrary surfaces by acoustic waves
11.00 - 11.15	Tatsuki Fushimi	Enhancing Dynamic Positioning Performance Inside Mid-Air Acoustic Levitator
11.15 -11.45	Coffee and Tea	
11.45 - 12.15 12.15 - 12.30	Glauber Silva Hanlin Wang	Acoustic deformation of soft matter with ultrasonic standing waves A new design of acoustic devices for micro-and nano- particles manipulation
12.30 - 12.45	Luke Cox	Holograms on Phased Arrays
12.45 - 13.00	Samaneh Moeini	TBD
13.00 - 14.15	Lunch	
14.15 - 14.45	Dave Philips	Indirect optical trapping: light driven micro-rotors for reconfigurable nearfield hydrodynamic manipulation
14.45 - 15.00	Raimund Bruenig	SAW Generation for Acoustofluidics: Applications and Accessories
15.00 - 15.15	Yinhua Dong	Flexible PCB travelling SAW in stem cell stimulation
15.15-15.30	TBC	TBC
15.30-15.50	Andy Nichols Close and wrap up	Acoustic holography in application to open channel flow characterisation

THE ACOUSTOFLUIDICS OLYMPICS

Robert Dwyer-Joyce Ultrasonics and the measurement of lubricants and lubricant properties

Jenna Shapiro Patterning Water Drops with Ultrasonic Standing Waves

Ali M. Yazdani Developing a biosensor chip, which is used to separate the circulating tumour cells effectively

Liangfei Tian Acoustic Wave Patterning of Coacervate Droplets

Luke Cox TinyLev: Low Cost Acoustic Levitation

Raimund Bruenig Water Atomization using Ultrasound in a Small Scale

Rafael Morales Creating tangible structures for interactive mid-air experiences

Jeremy and Luke Hawkes Perfect droplets; 2 Acoustic lab on a microscope slide; Levitation above chladni figures.

Yinhua Dong Flexible PCB travelling SAW in stem cell stimulation

Hanlin Wang TBC

Roman Mikhaylov SAW device with Interdigital electrodes based on a PCB

Tomos Brenchley TBC

Seyedmehdi Hosseini Biroun Droplet Impact on Inclined surfaces

ATTENDEE LIST

Mohammed Alghazi Haydar Aygun James Armstrong Shubhi Bansal Guido Bolognesi **Andrew Bond Tomos Brenchley** Michael Brown Raimund Bruenig Christian Burton

Andrei Cimpoeru Ben Clarke **Charles Courtney** Luke Cox Linda Devo Yinhua Dong **Bruce Drinkwater** Andrew Duncan Robert Dwyer-Joyce Elizabeth Dye Mary Dysko **David Fort** Amanda Franklin

Richard Fu Tatsuki Fushimi Peter Glynne-Jones Thomas Graham Khaled Hashem Jeremy Hawkes Luke Hawkes Martyn Hill

Mike Fraser

Tom Hill Seyedmehdi Hosseini Kang Hsu **Robert Hughes** Sam Jackson Joseph Kanja Xiangwei Li

Cardiff University London South Bank University

Imperial College University of Sussex Loughborough University

Thales UK

University of Sheffield University College London BelektroniG GmbH

Cardiff University

Cfms

University of Sheffield University of Bath University of Bristol **Bristol Futures Academy** Cardiff School Of Engineering

University of Bristol National Physical Laboratory University of Sheffield **Nottingham Trent University** University of Glasgow

Lumicks

University of Bristol Northumbria University University of Bristol University of Southampton

University of Sussex

University of Sheffield

Nuron

Acoustic Machines Heriot Watt University University of Southampton University of Bristol

Northumbria University Alchemy Software, Inc. University of Bristol University of Bristol University of Sheffield

Samuel Letherby-Gribble Ortho Clinical Diagnostics University of Sheffield

Sadaf Maramizonouz Northumbria University Ian Matthews Red Twin Ltd

Glen McHale Northumbria University Gianluca Memoli University of Sussex Roman Mikhaylov **Cardiff University**

University of Sussex

Loughborough University

Chris Monk Dyson

Rafael Morales Ultrahaptics

Gary Nicholas University of Sheffield **Andy Nichols** University of Sheffield Ejay Nsugbe University of Bristol Ekaterina Pchelintseva Imperial College London Dave Philips University of Exeter

Stefan Radel Soniccatch

Julien Reboud University of Glasgow Benjamin Robinson University of Bristol Jenna Shapiro University of Bristol Saksham Sharma University of Cambridge University of Alagoas, Brazil Glauber Silva

Rehana Smith Sarah Smith

Valerie Pinfield

Samaneh Moeini

Mercedes Stringer Martín **Cardiff University** Xiaoyu Sun University of Bristol Ran Tao Northumbria University

Stefan Tauber Soniccatch

University of Bristol Liangfei Tian

LabXero

Jonathan Toner Northumbria University Jethro Vernon Hanlin Wang Cardiff University Fangda Wu **Cardiff University** University of Bristol Yuan Xue Chris Yang Cardiff University Ali Mohammad Yazdani Marmara University

Jie Zhang