



## Monday, August 28, 2017 Conference Program

8:00 - 8:15 am	Welcome <a href="#">James Friend, Conference Chair</a>	
8:15 - 8:45 am	Invited Speaker <a href="#">Tony Huang, Duke University</a>	<i>Acoustic Tweezers: Manipulating Cells and Other Tiny Objects Using Surface Acoustic Waves (SAW)</i>
8:45 - 9:00 am	<a href="#">Nils Refstrup Skov, Technical University of Denmark</a>	<i>Numerical Modeling of Acoustic Radiation Forces and Streaming in Microscale Acoustofluidic Devices With Fluid-Solid Interactions</i>
9:00 - 9:15 am	<a href="#">Michael Baudoin</a>	<i>3D Numerical Modeling of Acoustic Streaming in Sessile Droplets from First Principles</i>
9:15 - 9:30 am	<a href="#">Jerome Cuenca, Cardiff University</a>	<i>Optimising SSAW Devices for Cancer Cell Separation Using Finite Element Modeling</i>
9:30 - 9:45 am	Coffee Break	
9:45 - 10:15 am	Invited Speaker <a href="#">Mikhail Shapiro, Caltech</a>	<i>Gas Vesicles: Acoustic Biomolecules for Ultrasound</i>
10:15 - 10:30 am	<a href="#">Neha Garg, University of California, Irvine</a>	<i>Isolation and Enrichment of Rare Circulating Tumor Cells from Whole Blood Using Acoustic Microstreaming</i>
10:30 - 10:45 am	<a href="#">Klara Petersson, Lund University</a>	<i>Acoustofluidic Whole Blood Hematocrit Assay</i>
10:45 - 11:00 am	<a href="#">Kenjiro Takemura</a>	<i>Detaching Cells from Cultivation Flask Using Acoustic Radiation Pressure Induced by Langevin Transducer</i>
11:00 am - 12:15 pm	Lunch	

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12:15 - 12:45 pm	Invited Speaker <a href="#">Michel Versluis, University of Twente</a>	<i>Bubble Acoustics: Streaming And Cavitation</i>
12:45 - 1:00 pm	<a href="#">Diego Baresch, Imperial College London</a>	<i>Vortex Beam Acoustical Tweezers As "Quiet" Bubble Traps</i>
1:00 - 1:15 pm	<a href="#">Akihisa Miyagawa, Tokyo Institute of Technology</a>	<i>Detection of Microsphere Surface Reaction Using Acoustic-Gravity Field</i>
1:15 - 1:30 pm	<a href="#">David Van Assche, Lund University</a>	<i>Acoustophoretic Manipulation of Sub-Micron Particles Using Density Gradients</i>
1:30 - 1:45 pm	Coffee Break	
1:45 - 2:00 pm	<a href="#">Dmitry Gritsenko, University of Illinois at Chicago</a>	<i>Drastic Sensing Enhancement Using Acoustic Bubble-Induced Agitation</i>
2:00 - 2:15 pm	<a href="#">Peter Reichert, ETH Zurich</a>	<i>Thin Film PZT Actuated BAW Acoustophoresis</i>
2:15 - 2:30 pm	<a href="#">Andreas Lenshof, Lund University</a>	<i>Critical Design Aspects on High Throughput Multiplex Acoustophoresis</i>
2:30 - 2:45 pm	<a href="#">Andreas Volk, Bundeswehr University Munich</a>	<i>Reproducible Bubble-Driven Acoustic Streaming for Flow And Particle Manipulation in a Microchannel</i>
2:45 - 3:00 pm	Coffee Break	
3:00 - 3:30 pm	Invited Speaker <a href="#">Donald Sirbuly, UC San Diego</a>	<i>The Acoustic Ear: A Nanoscale Optomechanical Means to Measure Sound</i>
3:30 - 3:45 pm	<a href="#">Xuexin Duan, Tianjin University</a>	<i>In-Line Micro/Nanoparticles Trapping, Queuing, and Sorting Via 3D Micro-Vortex Array Induced by Ultrahigh Frequency Acoustic Waves</i>
3:45 - 4:00 pm	<a href="#">Po-Hsun Huang, Duke University</a>	<i>Acoustofluidic fluid propulsion enabled by microscale vibration</i>
4:00 - 5:30 pm	Poster Session	
6:30 pm	Reception <a href="#">Martin Johnson House</a>	

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8:00 - 9:00 am	Plenary David Weitz, Harvard University	
9:00 - 9:15 am	Kai Melde, Max Planck Institute for Intelligent Systems	<i>Fabrication of Complex Shapes Using Acoustic Holograms</i>
9:15 - 9:30 am	Ghulam Destgeer, KAIST	<i>Size-Independent Separation of Vertically Focused Particles Using the Principal Component of Acoustic Radiation Force in a Continuous Flow</i>
9:30 - 9:45 am	Ryan Dubay, Draper	<i>High Throughput Acoustophoresis in an Array of Parallel Plastic Microchannels</i>
9:45 - 10:00 am	Coffee Break	
10:00 - 10:30 am	Invited Speaker Abraham Lee, UC Irvine	<i>Lateral Cavity Based Microstreaming for Whole Blood Sample Preparation</i>
10:30 - 10:45 am	Anna Fornell, Uppsala University	<i>Intra-Droplet Acoustic Separation of Two Particle Species in a Droplet Microfluidic System</i>
10:45 - 11:00 am	Benjamin Yellen, Duke University	<i>Acoustofluidic Platform for Organizing an Array of Single Cells</i>
11:00 - 11:15 am	Thierry Baasch, ETH Zurich	<i>Hydrodynamic Interactions in Acoustofluidic Multibody Simulations in the Rayleigh Limit and Beyond</i>
11:15 - 11:30 am	Coffee Break	
11:30 am - 12:00 pm	Invited Speaker Sreekanth "Shrek" Chalasani, Salk Institute	<i>Sonogenetics</i>
12:00 - 12:15 pm	Karl Olofsson, KTH Royal Institute of Technology	<i>Analysis of Ultrasound Induced Multi-Cellular Tumor Spheroids by High Throughput Imaging</i>
12:15 - 12:30 pm	Abel Thangawng, Naval Research Lab	<i>Acoustically Driven Elastic Membrane-Based Microfluidic Mixer</i>
12:30 - 12:45 pm	Stefan Radel, Vienna University of Technology	<i>An Ultrasonic Resonator Exploited in Order to Improve In-Line Raman Spectroscopy of Crystallization Processes</i>

12:45 - 1:45 pm	Lunch	
1:45 - 2:15 pm	Invited Speaker <a href="#">Ofer Manor, the Technion</a>	<i>Dragging and Draining Liquid Films Using Rayleigh Waves of MHz Frequency</i>
2:15 - 2:30 pm	<a href="#">Charles Thompson, UMASS Lowell</a>	<i>Acoustic Streaming and Instability of Oscillatory Boundary Layers in an Acoustofluidic Channel.</i>
2:30 - 2:45 pm	<a href="#">Richard O'Rorke, Singapore University of Technology and Design</a>	<i>Simulation-Driven Design of Waveguides for Single Cell Acoustic Traps</i>
2:45 - 3:00 pm	<a href="#">Philip Marston, Washington State University</a>	<i>From Modulated Acoustic Radiation Forces and Liquid Column Stabilization to Radiation Torques and Special Force Conditions</i>
3:00 - 3:15 pm	Coffee Break	
3:15 – 3:45 pm	<a href="#">Adrian Neild, Laboratory for Microsystems, Monash University, Australia</a>	<i>Surface acoustic waves in Droplet Microfluidics</i>
3:45 – 4:00 pm	<a href="#">Kian-Meng Lim, National University of Singapore</a>	<i>Investigation of Interparticle Radiation Force Between Two Spheres in Acoustophoresis</i>
4:00 - 4:15 pm	<a href="#">An Huang, UCSD</a>	<i>Eliminating Dendrite Growth in Lithium Metal Batteries During Fast Charging Via Surface Acoustic Wave Irradiation</i>
4:15 - 5:45 pm	Poster Session	
5:45 pm	Closing <a href="#">James Friend, Conference Chair</a> <i>W. Terrence Coakley Award</i> <a href="#">Andreas Lenshof</a> <i>President's Statement and Introduction of New President</i> <a href="#">Michael Baudoin</a> <i>Acoustofluidics 2018 Announcement</i>	

The CBMS and the Acoustofluidics 2017 Conference planning committee would like to give special thanks to our sponsors:



## Poster Session 1, Monday August 28

4:30-5:30 p.m.

<b>Poster ID</b>	<b>Presenter</b>	<b>Poster Title</b>
3	<a href="#">Ghulam Destgeer</a>	<i>Characterization of Microchannel Anechoic Corner Formed by Travelling Surface Acoustic Waves</i>
7	<a href="#">Fabio Garofalo</a>	<i>Modeling Particle Populations in Acoustophoretic Manipulation: Separation Performance and Cell-Parameter Estimation</i>
8	<a href="#">Fabio Garofalo</a>	<i>Bulk Material Reduction in Silicon-Glass Acoustofluidic Devices: Improved Channel-Resonance Modes and Reduced Geometry Dependence</i>
14	<a href="#">Filip Plazonic</a>	<i>Particle Capture and Detection Using Acoustophoresis and Antibody Binding</i>
15	<a href="#">Michael Gerlt</a>	<i>Acoustophoretic Particle Manipulation in Microscale Droplets for High Throughput Analysis of Cell Secretome</i>
17	<a href="#">Richard O'Rorke</a>	<i>Mechanical Properties Based Particle Separation via Traveling Surface Acoustic Wave</i>
21	<a href="#">Sinan Yigit</a>	<i>Acoustofluidic System with Integrated Microvalves</i>
23	<a href="#">Jinho Jung</a>	<i>On-demand Droplet Capture and Release by Using Acoustic Radiation Forces</i>
26	<a href="#">Jinsoo Park</a>	<i>Acoustic Droplet Manipulation in a Disposable Microfluidic Chip</i>
27	<a href="#">Richard O'Rorke</a>	<i>Refocusing Focused Surface Acoustic Waves</i>
29	<a href="#">David Collins</a>	<i>Time-averaged Acoustic Forces from Travelling Substrate Waves: The Effect of Channel Boundaries</i>
32	<a href="#">Jia Wei Ng</a>	<i>Travelling Surface Acoustic Waves for Particle Tweezing</i>
67	<a href="#">Masaya Takasaki</a>	<i>Trial Measurement of Gap of a Pump Using Ultrasonic Transducer and Opposing Surface</i>

## Poster Session 2, Tuesday August 29

4:00 - 5:00 p.m.

Poster ID	Presenter	Poster Title
5	<a href="#">Mathias Ohlin</a>	<i>In situ Temperature Monitoring During Acoustophoresis Using Integrated Thin film Pt Temperature Sensors</i>
19	<a href="#">Po-Hsun Huang</a>	<i>Acoustic Streaming Induced by Acoustically Oscillating Sharp-edge Structures in Microchannels: Spatial Effects</i>
43	<a href="#">Jacob S. Bach</a>	<i>Effective Modeling of Acoustic Boundary Layers in Acoustofluidic Systems with Curved Oscillating Walls</i>
44	<a href="#">Fabio Garofalo</a>	<i>Ultrasound Characterization of Cell Suspensions by Speed-of-Sound Measurements of Neutrally Buoyant Samples</i>
45	<a href="#">Henrik Bruus</a>	<i>Acoustic Streaming in Inhomogeneous Fluids -- A Numerical Study</i>
47	<a href="#">Walid Messaoudi</a>	<i>Contactless Manipulation Device Controlled by Two-Phase Flow for Lab-on-a-chip Applications.</i>
50	<a href="#">Mehmet Hakan Kandemir</a>	<i>Methods to Linearize Acoustic Radiation Force for Acoustophoresis Applications</i>
51	<a href="#">Carl Johannesson</a>	<i>The Impact of Fluid Flow on Acoustic Streaming Patterns</i>
54	<a href="#">Prateek Sehgal</a>	<i>Separation of Submicron Particles in Fabry-Perot Acoustofluidic Resonators</i>
59	<a href="#">Wei Qiu</a>	<i>Acoustic Streaming in Inhomogeneous Fluids – An Experimental Study</i>
61	<a href="#">Jiyang Mei</a>	<i>Surface Acoustic Wave Guiding and Steering on Lithium Niobate</i>
72	<a href="#">Chanryeol Rhyou</a>	<i>Cell Separation Using Dynamic Surface Acoustic Wave in Multiple Pressure Nodes</i>

**Don't forget to take a moment to visit our Exhibitors in the foyer next to the poster sessions:**

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