

8:00 am - 5:00 pm

Poster --- Thursday, October 22, 2015

4th floor

<p>Session P1A1. MEL: Elasticity Imaging: Simulations and Experimental Studies</p> <p>Chair: Brett Byram Vanderbilt University</p>	<p>P1A1-8 Feasibility of micro-elastography for tissue surrounding phase-change microbubbles using bubble wavelet transform</p> <p>Runna Liu¹, Rui Huo¹, Hong Hu¹, Shanshan Xu¹, Supin Wang¹, Mingxi Wan¹ ¹The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Department of Biomedical Engineering, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an, Shaanxi, China, People's Republic of</p>	<p>P1A2-7 Controlled thermal-sensitive liposomes release on a disposable microfluidic device</p> <p>Long Meng¹, Zhiting Deng¹, Lili Niu¹, Feiyan Cai¹, Hairong Zheng¹ ¹Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China, People's Republic of</p>	<p>P1A3-6 Assessment of the Potential of Beamforming for Needle Enhancement in Punctures</p> <p>Stefanie Dencks¹, Georg Schmitz¹ ¹Chair for Medical Engineering, Ruhr-Universität Bochum, Germany</p>	<p>P1A4-4 Compressive Adaptive Beamforming in 2D and 3D Ultrafast Active Cavitation Imaging</p> <p>Chen Bai¹, Shanshan Xu¹, Bowen Jing¹, Miao Yang¹, Mingxi Wan¹ ¹The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Department of Biomedical Engineering, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an, Shaanxi, China, People's Republic of</p>
<p>P1A1-1 RSNA QIBA Ultrasound Shear Wave Speed Phase II Phantom Study in Viscoelastic Media</p> <p>Mark Palmeri¹, Shigao Chen², Ted Lynch³, Kathryn Nightingale¹, Ned Rouze¹, Pengfei Song², Matthew Urban², Hua Xie⁴, Keith Wear⁵, Brian Garra⁶, Andy Milkowski⁶, Paul Carson⁷, Richard Barr⁸, Vijay Shamdassani⁹, Michael Macdonald¹⁰, Yasuo Miyajima¹¹, Timothy Hall¹² ¹Biomedical Engineering, Duke University, Durham, NC, USA, ²Mayo Clinic, USA, ³CIRS, Inc., USA, ⁴Philips Research, USA, ⁵US Food and Drug Administration, USA, ⁶Siemens Healthcare, USA, ⁷University of Michigan Ann Arbor, USA, ⁸Radiology Consultants, Inc., USA, ⁹Philips Healthcare-Ultrasound, USA, ¹⁰GE Healthcare, USA, ¹¹Toshiba Medical Research Institute USA, Inc., USA, ¹²Medical Physics, University of Wisconsin Madison, Madison, WI, USA</p>	<p>Session P1A2. MBE: Bioeffects in Cells and Tissue</p> <p>Chair: Jonathan Mamou Riverside Research</p>	<p>P1A2-8 The Contribution of Shear Wave Absorption to Ultrasound Heating in Bones: Coupled Elastic-Thermal Modeling Using the k-Wave Toolbox</p> <p>Bradley Treeby¹, Teedah Saratoon¹ ¹Medical Physics and Biomedical Engineering, University College London, London, United Kingdom</p>	<p>P1A3-7 Pulse inversion based multi-subharmonic composite cavitation imaging</p> <p>Hui Zhong¹, Mingxi Wan¹ ¹Xi'an Jiaotong University, Xi'an, Shaanxi Province, China, People's Republic of</p>	<p>P1A4-5 Compressed Sensing-Synthetic Focusing for High Frame Rate, High Resolution and High Contrast Ultrasound Imaging</p> <p>Jing Liu¹, Qiong He¹, Jianwen Luo¹ ¹Department of Biomedical Engineering, Tsinghua University, Beijing, China, People's Republic of</p>
<p>P1A1-2 Estimation of degree of anisotropy in transversely isotropic (TI) elastic materials from acoustic radiation force (ARF)-induced peak displacements (PD)</p> <p>Md Murad Hossain¹, Caterina Gallippi^{1,2} ¹Joint Department of Biomedical Engineering, University of North Carolina, Chapel Hill, North Carolina, USA, ²Electrical and Computer Engineering, North Carolina State University, Raleigh, North Carolina, USA</p>	<p>P1A2-1 Study the Cell Death Induced by Subcellular Localized Sonodynamic Therapy</p> <p>Yongmin Huang¹, Zhihai Qiu¹, Yaoheng Yang¹, Cheng Liu¹, SUN Lei¹ ¹The Hong Kong Polytechnic University, Hong Kong</p>	<p>Session P1A3. MIM: Ultrasound Image Formation</p> <p>Chair: Gregg Trahey Duke University</p>	<p>P1A3-8 Contrast-enhanced ultrasound tomography using the cumulative phase delay between second harmonic and fundamental component</p> <p>Libertario Demi¹, Ruud J.G. van Sloun¹, Hessel Wijkstra^{1,2}, Massimo Mischi¹ ¹Biomedical Diagnostics Lab., Eindhoven University of Technology, Netherlands, ²Academic Medical Center Amsterdam, Netherlands</p>	<p>P1A4-6 Plane-wave Ultrasound Imaging Based on Compressive Sensing with Low Memory Occupation</p> <p>Congzhi Wang¹, Hairong Zheng¹ ¹Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China, People's Republic of</p>
<p>P1A1-3 Experimental study on the effect of the cylindrical vessel geometry on arterial shear wave elastography</p> <p>Darya Shcherbakova¹, Annette Caenen¹, Simon Chatelin², Clement Papadacci², Mathieu Pernot², Abigail Swillens¹, Patrick Segers¹ ¹Minds Medical IT, IBiTech-bioMMeda, Ghent University, Ghent, Belgium, ²Institut Langevin, ESPCI ParisTech, CNRS UMR7587, INSERM U979, Paris, France</p>	<p>P1A2-2 Impact of Microbubble-to-cell Parameters on Heterogeneous Sonoporation at the Single-Cell Level</p> <p>Peng Qin¹, Yutong Lin¹, lifang Jin², Lianfang Du², Alfred C H Yu³ ¹Instrumentation Science and Engineering, Shanghai Jiao Tong University, Shanghai, China, People's Republic of, ²Department of Ultrasound, Shanghai Jiaotong University Affiliated the First People's Hospital, Shanghai, China, People's Republic of, ³Medical Engineering Program, The University of Hong Kong, Hong Kong</p>	<p>P1A3-1 6-DOF Free-hand Navigation Interface for Volumetric 3-dimensional Ultrasound Imaging: Preliminary Results</p> <p>JongJun LEE¹, Jeeun KANG¹, Tai-kyong SONG¹ ¹Department of electronic engineering, Sogang university, Seoul, Korea, Republic of</p>	<p>P1A3-9 Microultrasound Capsule Endoscopy Inflammatory Imaging: Phantom Studies</p> <p>Benjamin F Cox¹, Vipin Seetohul¹, Holly Lay¹, Sandy Cochran¹ ¹Imaging & Technology, University of Dundee, Dundee, United Kingdom</p>	<p>P1A4-7 Fourier Beamformation of Multistatic Synthetic Aperture Ultrasound Imaging</p> <p>Elahe Moghimrad¹, Carlos A. Villagomez Hoyos², Ali Mahloojifar¹, Babak Mohammadzadeh Asl¹, Jørgen Arendt Jensen² ¹Dep. of Elec. and Comp. Eng., Tarbiat Modares University, Tehran, Iran, ²Center for Fast Ultrasound Imaging, Dept. of Elec. Eng., Bldg. 349, Technical University of Denmark, Denmark</p>

<p>P1A1-4 High line-density pulse wave imaging for local pulse wave velocity estimation using motion matching: A feasibility study on vessel phantoms</p> <p>Fubing Li¹, Qiong He¹, Chengwu Huang¹, Jianwen Luo¹ ¹Department of Biomedical Engineering, Tsinghua University, Beijing, China, People's Republic of</p>	<p>P1A2-3 Effects of low-intensity pulsed ultrasound on nerve growth factor-induced neurite outgrowth and signaling in PC12 cells</p> <p>Lu Zhao¹, Yi Feng¹, Mingxi Wan¹ ¹The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Department of Biomedical Engineering, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an, Shanxi, China, People's Republic of</p>	<p>P1A3-2 Advanced Automated Gain Adjustments for In-Vivo Ultrasound Imaging</p> <p>Ramin Moshavegh¹, Martin Christian Hemmens¹, Bo Martins², Andreas Hjelm Brandt³, Thor Bechsgaard³, Kristoffer Lindskov Hansen³, Caroline Ewertsen³, Michael Bachmann Nielsen³, Jørgen Arendt Jensen¹ ¹Electrical engineering, Technical University of Denmark, Lyngby, Denmark, ²BK Medical ApS, Herlev, Denmark, ³Department of Radiology, Copenhagen University Hospital, Copenhagen, Denmark</p>	<p>Session P1A4. MBB: Beamforming I</p> <p><i>Chair: Meng-Lin Li</i> National Tsing Hua University</p>	<p>P1A4-8 Comparison of spatial and temporal averaging on Ultrafast Imaging in presence of quantization errors</p> <p>Asraf Mohamed Moubark¹, Zainab Alomari¹, Sevan Harput¹, Steven Freear¹ ¹School of Electronic and Electrical Engineering, University of Leeds, Leeds, United Kingdom</p>
<p>P1A1-5 Viscoelastic tissue mimicking phantom validation study with shear wave elasticity imaging and viscoelastic spectroscopy</p> <p>Carolina Amador¹, Randall Kinnick¹, Matthew Urban¹, Mostafa Fatemi¹, James Greenleaf¹ ¹Department of Physiology and Biomedical Engineering, Mayo Clinic College of Medicine, Rochester, Minnesota, USA</p>	<p>P1A2-4 Sonodynamic Therapy of Breast Tumor by Using of IR-780 Dye</p> <p>Fei Yan¹, Yekuo Li², Zhiting Deng¹, Hairong Zheng¹ ¹Paul C. Lauterbur Research Center for Biomedical Imaging, Shenzhen Institutes of Advanced Technology, China, People's Republic of, ²Guangzhou General Hospital, China, People's Republic of</p>	<p>P1A3-3 Quantifying the benefit of elevated acoustic output in harmonic imaging</p> <p>Yufeng Deng¹, Mark Palmeri¹, Ned Rouze¹, Kathryn Nightingale¹ ¹Duke University, Durham, North Carolina, USA</p>	<p>P1A4-1 Dual-Domain Compressed Beamforming for Medical Ultrasound Imaging</p> <p>Bo Zhang¹, Jean-Luc Robert², Guillaume David³ ¹Medisys, Philips Research France, Suresnes, France, ²Philips Research North America, Briarcliff, USA, ³Columbia University, New York, USA</p>	<p>P1A4-9 Single transmission plane wave compounding for ultrafast ultrasound imaging</p> <p>Natan Pages¹, Barbara Nicolas¹, Herve Liebgott¹ ¹CREATIS, France</p>
<p>P1A1-6 Comparison of techniques for estimating shear-wave velocity in arterial wall using shear-wave elastography - FEM and phantom study</p> <p>Jun-keun Jang¹, Kengo Kondo¹, Takeshi Namita¹, Makoto Yamakawa¹, Tsuyoshi Shiina¹ ¹Graduate School of Medicine, Kyoto University, Kyoto, Japan</p>	<p>P1A2-5 DNA packing by low-intensity ultrasound</p> <p>Donghee Park¹, Gillsso Song², Hyunjin Park³, Hyunbeen Lee³, Ji-Young Jang¹, Han-Sung Kim², Chul-Woo Kim¹, Jongbum Seo² ¹Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea, Republic of, ²Department of Biomedical Engineering, Yonsei University, Wonju, Korea, Republic of, ³School of Electronic Electrical Engineering, Sungkyunkwan University, Suwon, Korea, Republic of</p>	<p>P1A3-4 3D Super-Resolution Ultrasound using Microbubbles</p> <p>Kirsten Christensen-Jeffries¹, Meng-Xing Tang², Joseph V Hajnal¹, Paul Aljabar¹, Christopher Dunsby^{3,4}, Robert J Eckersley¹ ¹Biomedical Engineering, Division of Imaging Sciences, Kings College London, London, United Kingdom, ²Bioengineering, Imperial College London, London, United Kingdom, ³Department of Physics, Imperial College London, London, United Kingdom, ⁴Centre for Histopathology, Imperial College London, London, United Kingdom</p>	<p>P1A4-2 Efficiency of Multi-look compounding of MVDR and APES Beamformers under Strong Wave Aberration Conditions</p> <p>Teiichiro Ikeda¹, Shinta Takano¹, Hiroshi Masuzawa¹ ¹Hitachi Ltd., Tokyo, Japan</p>	<p>P1A4-10 Increased frame rate for plane wave imaging without loss of image quality</p> <p>Jonas Jensen¹, Matthias Bo Stuart¹, Jørgen Arendt Jensen¹ ¹Dept. of Elect. Eng, Technical University of Denmark, Kgs. Lyngby, Denmark</p>
<p>P1A1-7 Viscoelasticity and shear wave velocity of liver tissue evaluated by dynamic mechanical analysis</p> <p>Kenoh Murakami¹, Kenji Yoshida², Kazuya Kawamura², Mariko Tsukune³, Yo Kobayash⁴, Masakatsu Fujie⁵, Riwa Kishimoto⁶, Takayuki Obata⁶, Tadashi Yamaguchi² ¹Graduate School of Engineering, Chiba University, Chiba, Japan, ²Center for Frontier Medical Engineering, Chiba University, Chiba, Japan, ³Graduate School of Science and Engineering and Institute of Advanced Active Aging Research, Waseda University, Tokyo, Japan, ⁴Research Institute for Science and Engineering, Waseda University, Tokyo, Japan, ⁵Faculty of Science and Engineering, Waseda University, Tokyo, Japan, ⁶Research center for charged particle therapy, National Institute of Radiological Science, Chiba, Japan</p>	<p>P1A2-6 On the thermal effect in biological tissues exposed to ultrasound of longer pulse duration after administration of contrast agents</p> <p>Kazuki Akai¹, Yasunao Ishiguro², Naotaka Nitta³, Hideki Sasanuma², Nobuyuki Taniguchi⁴, Iwaki Akiyama¹ ¹Faculty of Life and Medical Sciences, Doshisha University, Kyotanabe, Kyoto, Japan, ²Department of Surgery, Jichi Medical University, Shimotsuke, Tochigi, Japan, ³Human Technology Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan, ⁴Department of Clinical Laboratory Medicine, Jichi Medical University, Shimotsuke, Tochigi, Japan</p>	<p>P1A3-5 A Study for B-Mode Imaging using 100-MHz-Range Ultrasound through a Fused Quartz Fiber</p> <p>Takasuke Irie^{1,2}, Masasumi Yoshizawa³, Norio Tagawa¹, Tadashi Moriya⁴ ¹Graduate School of System Design, Tokyo Metropolitan University, Tokyo, Japan, ²Microsonic Co., Ltd., Japan, ³Metropolitan College of Industrial Technology, Japan, ⁴Tokyo Metropolitan University, Tokyo, Japan</p>	<p>P1A4-3 Hadamard-Encoded Synthetic Transmit Aperture Imaging with a Reduced Number of Receiving Channels</p> <p>Ying Li¹, Ping Gong¹, Michael C. Kolios¹, Yuan Xu¹ ¹Biomedical Physics, Ryerson University, Toronto, ON, Canada</p>	<p>P1A4-11 Motion-Corrected Coherent Compounding for Improved Beamforming in Ultrafast Imaging</p> <p>Jean Provost¹, Mafalda Correia¹, Mickael Tanter¹, Mathieu Pernot¹ ¹Institut Langevin, ESPCI, Paristech, INSERM, France</p>

<p>Session P1A5. MTH: Therapeutic Methods</p> <p><i>Chair: Helen Mulvana</i> University of Glasgow</p>	<p>P1A5-8 New discovery of thin catheter movement under acoustical field of focused transducer</p> <p>Takashi Mochizuki¹, Nobuhiro Tsurui¹, Naoto Hosaka¹, Kohji Masuda¹ ¹Tokyo University of Agriculture and Technology, Tokyo, Japan</p>	<p>ession P1A6. MSP: Medical Signal Processing</p> <p><i>Chair: Martin Hemmsen</i> Technical University of Denmark</p>	<p>P1A6-8 A Multiparametric Approach Integrating Vessel Diameter, Wall Shear Rate and Physiologic Signals for Optimized Flow Mediated Dilatation Studies</p> <p>Alessandro Ramalli¹, Michal Byra², Alessandro Dallai¹, Carlo Palombo³, Kunihiro Aizawa⁴, Piero Tortoli¹ ¹Information Engineering Department, University of Florence, Firenze, Italy, ²Department of Ultrasound, Institute of Fundamental Technological Research PAS, Warsaw, Poland, ³Department of Surgical, Medical, Molecular, and Critical Area Pathology, University of Pisa, Pisa, Italy, ⁴Diabetes and Vascular Medicine Research Centre, NIHR Exeter Clinical Research Facility, University of Exeter Medical School, Exeter, United Kingdom</p>	<p>P1A7-5 Thin-Walled Carotid Bifurcation Phantom Systems for Vascular Strain-Flow Imaging Investigations</p> <p>Adrian J. Y. Chee¹, Billy Y. S. Yiu¹, Alfred C. H. Yu¹ ¹Medical Engineering Program, The University of Hong Kong, Hong Kong</p>
<p>P1A5-1 New cancer treatment method utilizing intratumoral drug distribution control with mechanical effects of cavitation</p> <p>Ken-ichi Kawabata¹, Takashi Maruoka¹, Rei Asami¹, Hideki Yoshikawa¹, Reiko Ashida² ¹Hitachi, Ltd., Tokyo, Japan, ²Osaka Medical Center for Cancer and Cardiovascular Diseases, Osaka, Japan</p>	<p>P1A5-9 Features of acoustic radiation function on thin catheter as a tube</p> <p>Takashi Mochizuki¹, Nobuhiro Tsurui¹, Kohji Masuda¹ ¹Graduate school of Bio-Application & System Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan</p>	<p>P1A6-1 Sub-sampled Doppler ultrasound reconstruction using block sparse Bayesian learning</p> <p>Oana Lorintiu¹, Hervé Liebgott¹, Olivier Bernard¹, Denis Friboulet¹ ¹Université de Lyon, CREATIS ; CNRS UMR5220 ; Inserm U1044 ; INSA-Lyon ; Université Lyon 1, Lyon, France</p>	<p>P1A6-9 A Novel Side Lobe Estimation Method in Medical Ultrasound Imaging Systems</p> <p>Mok Kun Jeong¹, Sung Jae Kwon¹ ¹Electric, Electronic and communication engineering, Daejin University, Pocheon, Kyeonggi, Korea, Republic of</p>	<p>P1A7-6 Receiver Operating Characteristics Analysis of Eigen-Based Clutter Filters for Ultrasound Color Flow Imaging</p> <p>Adrian J. Y. Chee¹, Alfred C. H. Yu¹ ¹Medical Engineering Program, University of Hong Kong, Pokfulam, Hong Kong</p>
<p>P1A5-2 High resolution coagulation size estimation with multiple modulation frequencies for localized motion imaging</p> <p>Takashi Azuma¹, Ryusuke Sugiyama¹, Chen Optatovsky¹, Mika Seki¹, Hideki Takeuchi¹, Keisuke Fujiwara², Kazunori Itani², Kiyoshi Yoshinaka³, Shu Takagi¹, Yoichiro Matsumoto¹ ¹The University of Tokyo, Japan, ²Hitachi Aloka Medical, Japan, ³National Institute of Advanced Industrial Science and Technology, Japan</p>	<p>P1A5-10 Ultrasound image-based dynamic fusion modeling for estimating the impact of organ motion on HIFU therapies and evaluating motion compensation strategies</p> <p>W. Apoutou N'DJIN¹, Jean-Yves CHAPELON¹, David MELODELIMA¹ ¹LabTau, Inserm, U1032; Université de Lyon, Lyon, France</p>	<p>P1A6-2 B-field energy dependent phase lag dispersion in Magnetomotive ultrasound imaging</p> <p>Roger Andersson¹, Magnus Cinthio¹, Maria Evertsson¹, Hanna Toftvall², Anders Wahlström³, Sarah Fredriksson⁴, Göran Nybom⁵, Tomas Jansson^{6,7} ¹Biomedical Engineering, Lund University, Lund, Sweden, ²Geccodots AB, Lund, Sweden, ³Lundinova AB, Lund, Sweden, ⁴Genovis AB, Lund, Sweden, ⁵JOIN Business & Technology AB, Lund, Sweden, ⁶Clinical Sciences Lund, Biomedical Engineering, Lund University, Sweden, ⁷Medical Services, Skåne University Hospital, Lund, Sweden</p>	<p>P1A6-10 Estimation of Arteriovenous Fistula Stenosis by Quantitative Doppler Ultrasound Using Adaptive Gray Relation Method</p> <p>Jian-Xing Wu¹, Tainsong Chen² ¹National Synchrotron Radiation Research Center, Hsinchu, Taiwan, ²Department of Biomedical Engineering, National Cheng Kung University, Tainan, Taiwan</p>	<p>P1A7-7 Wall Shear Rate Method Validation Through Multi-physics Simulations</p> <p>Stefano Ricci¹, Abigail Swillens², Alessandro Ramalli¹, Patrick Segers², Piero Tortoli¹ ¹Information Engineering Dept., Università di Firenze, Firenze, Italy, ²IBiTech-bioMMeda, iMinds Medical IT, Gent University, Belgium</p>
<p>P1A5-3 Temperature distribution analysis for High Intensity Focused Ultrasound Breast Cancer Treatment by Numerical Simulation</p> <p>Mingzhen ZHANG¹, Takashi AZUMA¹, Kohei OKITA², Xiaolei QU¹, Ryuta NARUMI¹, Hidemi FURUSAWA³, Junichi SHIDOOKA³, Shu TAKAGI¹, Yoichiro MATSUMOTO¹ ¹Graduate School of Engineering, The University of Tokyo, Japan, ²College of Industrial Technology, Nihon University, Japan, ³Breastopia Medical Corporation, Breastopia Namba Hospital, Japan</p>	<p>P1A5-11 Enhanced spatio-temporal control of acoustic cavitation during flow using a novel short-pulse ultrasonic pulse sequence and passive acoustic mapping</p> <p>Antonios Pouliopoulos¹, Marc Tinguely², Caiqin Li¹, Mengxing Tang¹, Valeria Garbin², James Choi¹ ¹Bioengineering, Imperial College London, United Kingdom, ²Chemical Engineering, Imperial College London, United Kingdom</p>	<p>P1A6-3 Discover layered structure in ultrasound images with a joint sparse representation model</p> <p>Junbo Duan¹, Hui Zhong¹, Bowen Jing¹, Siyuan Zhang¹, Mingxi Wan¹ ¹The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Department of Biomedical Engineering, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an, Shaanxi, China, People's Republic of</p>	<p>Session P1A7. MBF: Performance Investigations and Phantom Design</p> <p><i>Chair: Lasse Løvstakken</i> NTNU</p>	<p>P1A7-8 Investigation of Twinkling Artifact by Controlling Oscillating Disturbance</p> <p>Yu Naito¹, Masayuki Tanabe¹, Masahiko Nishimoto¹, Hiroshi Hashimoto², Takao Jibiki², Tadashi Shimazaki² ¹Graduate School of Science and Technology, Kumamoto University, Kumamoto,</p>

<p>P1A5-4 Generation of calibration curve with pulse compression technique for ultrasound-based temperature estimation</p> <p>Su A Lee¹, Jong Seob Jeong¹ ¹Medical Biotechnology, Dongguk University, Gyeonggi-do, Korea, Republic of</p>	<p>P1A5-12 The dynamic excitation of a chain of pre-stressed spheres for biomedical ultrasound applications: contact mechanics finite element analysis and validation</p> <p>Pierre Gelat¹, Nader Saffari¹, David Hutchins², Jia Yang², Omololu Akanji², Peter Thomas², Lee Davis², Steven Freear³, Sevan Harput³ ¹UCL Mechanical Engineering, University College London, United Kingdom, ²School of Engineering, University of Warwick, United Kingdom, ³School of Electronic and Electrical Engineering, University of Leeds, United Kingdom</p>	<p>P1A6-4 A Sub-Nyquist Sampling Analog Front-End with Mixer-Based Subarray Beamforming for B-Mode Ultrasound Imaging</p> <p>Jonathon Spaulding¹, Boris Murmann¹ ¹Stanford University, Stanford, California, USA</p>	<p>P1A7-1 In vivo Investigation for Accuracy Estimation of Vector Flow Mapping</p> <p>Tomohiko Tanaka¹, Takashi Okada², Tomohide Nishiyama², Yoshinori Seki², Ken-ichi Kawabata¹ ¹Hitachi, Ltd., Japan, ²Hitachi Aloka Medical, Ltd., Japan</p>	<p>Session P2A1. Ultrasonics in Air and Water</p> <p>Chair: Jiomaru Tsujino Kanagawa University</p>
<p>P1A5-5 Visualization of the intensity field of a high intensity focused ultrasound (HIFU) source in situ</p> <p>Trong Nguyen¹, Minh Do¹, Michael L. Oelze¹ ¹Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, USA</p>	<p>P1A5-13 Extracorporeal Acute Cardiac Pacing by High Intensity Focused Ultrasound in Practice and Theory</p> <p>Amit Livneh¹, Eitan Kimmel¹, Dan Adam¹ ¹Biomedical Engineering, Technion-Israel Institute of Technology, Haifa, Israel</p>	<p>P1A6-5 Combined use of edge-detection and tissue Doppler for robust left ventricle segmentation</p> <p>Sigurd Storve¹, Fredrik Orderud², Hans Torp¹ ¹Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Norway, ²GE Vingmed Ultrasound, Norway</p>	<p>P1A7-2 Validation of a novel vector method for blood peak detection in an anthropomorphic phantom</p> <p>Riccardo Matera¹, Stefano Ricci¹, Alfred C.H. Yu², Billy Y.S. Yiu², Piero Tortoli¹ ¹Information Engineering Dept., Università di Firenze, Florence, Italy, ²Medical Engineering Program, University of Hong Kong, Pokfulam, Hong Kong</p>	<p>P2A1-1 Ultrasonic transducer characterization in air based on an indirect acoustic radiation pressure measurement</p> <p>Anastasia Guseva¹, Maik Hoffmann¹, Alexander Unger², Silvia Zulk³, Mohamed Balla El Amien¹, Ennes Sarraj¹, Mario Kupnik² ¹BTU Cottbus-Senftenberg, Germany, ²Technische Universität Darmstadt, Germany, ³Leibniz Universität Hannover, Germany, ⁴University of Sharjah, United Arab Emirates</p>
<p>P1A5-6 Inducing antivasular effects in tumors with ultrasound stimulated micron sized bubbles</p> <p>Naomi Matsuura¹, Minseok Seo², Niroo Sivapalan², Siqi Zhu², Ben Leung², David Goertz^{3,4} ¹Medical Imaging, University of Toronto, Canada, ²Sunnybrook Research Institute, Canada, ³Sunnybrook Research Institute, Toronto, ON, Canada, ⁴Medical Biophysics, University of Toronto, Canada</p>	<p>P1A5-14 HIFU real-time feedback control using localized motion imaging with dynamic cross correlation window</p> <p>Xiaolei Qu¹, Takashi Azuma¹, Ryusuke Sugiyama¹, Kengo Kanazawa¹, Mika Seki¹, Akira Sasaki¹, Hideki Takeuchi¹, Keisuke Fujiwara², Kazunori Itani², Satoshi Tamano³, Shu Takagi¹, Ichiro Sakuma¹, Yoichiro Matsumoto¹ ¹The University of Tokyo, Japan, ²Hitachi Aloka Medical, Ltd., Japan, ³Tohoku University, Japan</p>	<p>P1A6-6 Streak artifact reduction for blind deconvolution of multibeam image</p> <p>Kangwon Jeon¹, Hyuntaek Lee¹, Munkyeong Hwang¹, Yongsup Park¹ ¹Digital Media & Communications R&D Center, Samsung Electronics, Suwon, Gyeonggi, Korea, Republic of</p>	<p>P1A7-3 Novel Design of Patient-Specific Cerebral Aneurysm Phantoms for Intraoperative Ultrasound Investigations</p> <p>C. K. Ho¹, Adrian J. Y. Chee¹, Billy Y. S. Yiu¹, Anderson C. O. Tsang², K. W. Chow³, Alfred C. H. Yu¹ ¹Medical Engineering Program, University of Hong Kong, Pokfulam, Hong Kong, ²Department of Surgery, University of Hong Kong, Pokfulam, Hong Kong, ³Department of Mechanical Engineering, University of Hong Kong, Pokfulam, Hong Kong</p>	<p>P2A1-2 Side Lobe Suppression for Air-Coupled Ultrasonic Transducers with Parabolic Horn</p> <p>Koji Ibata¹, Rokuzo Hara¹, Tomonori Kimura¹, Toru Fukasawa¹, Hiroaki Miyashita¹, Satoru Inoue¹ ¹Mitsubishi Electric Corporation, Japan</p>
<p>P1A5-7 Enhanced Cavitation Activities from Axial Split Foci Using Second/Third-Harmonic Superimposition for Focused Ultrasound Surgery</p> <p>Mingzhu Lu¹, Yubo Guan¹, Yujiao Li¹, Mingxi Wan¹ ¹Department of Biomedical Engineering, School of Life Science and Technology, Xi'an Jiaotong University, The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Xi'an, Shaanxi, China, People's Republic of</p>	<p>P1A5-15 Pulse Inversion Technique for HIFU Treatment Monitoring in Real Time</p> <p>Byungwoo Kang¹, Hyuncheol Kim^{2,3}, Jin Ho Chang^{1,3} ¹Electronic Engineering, Sogang University, Korea, Republic of, ²Chemical and Biomolecular Engineering, Sogang University, Korea, Republic of, ³Interdisciplinary Program of Integrated Biotechnology, Sogang University, Korea, Republic of</p>	<p>P1A6-7 Dynamic Baseband Pulse Compression for Coded Excitation Imaging</p> <p>Yeajin Kim¹, Jinbum Kang¹, Yangmo Yoo^{1,2} ¹Electronic Engineering, Sogang University, Seoul, Korea, Republic of, ²Interdisciplinary Program of Integrated Biotechnology, Sogang University, Korea, Democratic People's Republic of</p>	<p>P1A7-4 Implementation and evaluation of slow-time Golay decoding for pre-clinical high-frequency color Doppler imaging in mice</p> <p>Che-Chou Shen¹, Jyun-Gong Yu¹, Gency Jeng² ¹Electrical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan, ²S-Sharp Corporation, Taiwan</p>	<p>P2A1-3 Calibration of ultrasonic hydrophones based on spherically focused self-reciprocity technique</p> <p>Guangzhen Xing¹, Ping Yang², Pengcheng Hu¹ ¹Institute of Ultra-precision Optoelectronic Instrument Engineering, Harbin Institute of Technology, Harbin, Heilongjiang, China, People's Republic of, ²Division of Mechanics and Acoustics, National Institute of Metrology, Beijing, Beijing, China, People's Republic of</p>

<p>Session P2A2. SHM in Concrete</p> <p><i>Chair: Joel Harley</i> <i>University of Utah</i></p>	<p>P2A3-3 Optimal Lamb wave mode and frequency selection for assessment of creep damage in titanium alloy plates</p> <p>Yanxun Xiang¹, Fu-Zhen Xuan² ¹East China University of Science and Technology, Shanghai, Shanghai, China, People's Republic of, ²East China University of Science and Technology, China, People's Republic of</p>	<p>P3A1-3 "Ultrasonic studies of physicochemical parameters of biofuels in a broad range of pressures and temperatures"</p> <p>Piotr Kielczynski¹, Marek Szalewski¹, Andrzej Balcerzak¹, Krzysztof Wieja¹, Aleksander Rostocki², Ryszard Siegoczyński², Stanislaw Ptasznik³ ¹Polish Academy of Sciences, Poland, ²Warsaw University of Technology, Poland, ³Institute of Agricultural and Food Biotechnology, Poland</p>	<p>Session P4A1. Sensors & Applications I</p> <p><i>Chair: Mauricio Pereira da Cunha</i> <i>University of Maine</i></p>	<p>P4A2-1 Optimized Response of AIN Stack For Chipscale GHz Ultrasonics</p> <p>Jason Hoople¹, Justin Kuo¹, Jeffrey Soon Bo Woon², Navab Singh², Amit Lal¹ ¹Electrical and Computer Engineering, Cornell University, USA, ²Institute of Microelectronics, Singapore</p>
<p>P2A2-1 Low Frequency Coded Waveform for the Inspection of Concrete Structure</p> <p>M.N.I.B. Mohamed¹, S. Laureti^{1,2}, M. Ricci², L.A.J. Davis¹, P. Burrascano², D.A. Hutchins¹ ¹School of Engineering, University of Warwick, Coventry, United Kingdom, ²Polo Scientifico Didattico di Terni, Università degli Studi di Perugia, Terni, Italy</p>	<p>P2A3-4 Detection of Low-frequency Components in Ultrasonic Waves Transmitted through Contact Solids</p> <p>Yuji Kato¹, Hirokata Tanaka¹, Toshihiko Sugiura¹ ¹Keio University, Japan</p>	<p>P3A1-4 Experimental Investigation on the Jet-like Acoustic Streaming in front of an Oscillating Circular Piston</p> <p>Arturo Santillan¹ ¹Department of Technology and Innovation, University of Southern Denmark, Odense M, Fyn, Denmark</p>	<p>P4A1-1 Investigation of langasite surface acoustic wave pressure sensors with a structure of reinforcing its pressure sensitivity</p> <p>Honglang Li¹, Yabing Ke¹, Yiyu Zhao¹, Lina Cheng¹, Shitang He¹ ¹Institute of acoustics, China, People's Republic of</p>	<p>P4A2-2 Low Loss and Wide Band Filters Using New Dispersive Interdigital Transducers with Floating Electrodes</p> <p>Kazuhiko Yamanouchi¹ ¹Acoustic Wave Labo., Ltd, Japan</p>
<p>P2A2-2 Reverse Time Migration Based Ultrasonic Imaging of Rebars Embedded in Concrete</p> <p>Surendra Beniwal¹, Abhijit Ganguli¹ ¹Civil Engineering, Indian Institute of Technology Delhi, Delhi, India</p>	<p>P2A3-5 Reconfigurable and Programmable System-on-Chip Hardware Platform for Real-time Ultrasonic Testing Applications</p> <p>Pramod Govindan¹, Boyang Wang¹, Pingping Wu¹, Ivan Palkov¹, Vidya Vasudevan¹, Jafar Saniee¹ ¹Electrical and Computer Engineering, Illinois Institute of Technology, Chicago, Illinois, USA</p>	<p>P3A1-5 Dyadic Universal Functions and Simultaneous Near-field/Far-field Regularization of Elasto-dynamic Dyadic Green's Functions for 3D Mass-loading Analysis in Micro-acoustic Devices</p> <p>Alireza Baghai-Wadji¹ ¹Electrical Engineering, University of Cape Town, Cape Town, South Africa</p>	<p>P4A1-2 Development of SAW current sensor based on the magnetomechanics effect</p> <p>Yana Jia¹, Wen Wang¹, Xinlu Liu¹, Shitang He¹ ¹Chinese Academy of Sciences, Institute of Acoustics, Beijing, China, People's Republic of</p>	<p>P4A2-3 Acoustic Micro-resonator Utilizing Hemispherical Air Cavity for Sensitivity Enhancement</p> <p>Anton Shkel¹, Eun Sok Kim¹ ¹Electrical Engineering, University of Southern California, Los Angeles, CA, USA</p>
<p>P2A2-3 Study on Non-Contact Acoustic Imaging Method for Concrete Structures - The 2nd Construction Method using a Strong Ultrasonic Sound Source-</p> <p>Tsuneyoshi Sugimoto¹, Kazuko Sugimoto², Noriyuki Utagawa³, Kageyoshi Katakura⁴ ¹Graduate School of Engineering, Toin University of Yokohama, Yokohama, Japan, ²Graduate School of Engineering, Toin University of Yokohama, Japan, ³SatoKogyo Co., Ltd., Japan, ⁴Meitoku Engineering, Japan</p>	<p>P2A3-6 Model-based parameter estimation for defect characterization in ultrasonic NDE applications</p> <p>Yufeng Lu¹, Jafar Saniee² ¹Electrical and Computer Engineering, Bradley University, Peoria, Illinois, USA, ²Electrical and Computer Engineering, Illinois Institute of Technology, Chicago, Illinois, USA</p>	<p>P3A1-6 Ultrasonic batch processing of ultra heavy crude oil for viscosity reduction on the industrial scale</p> <p>Delong Xu¹, Jingjun Deng¹, Weijun Lin¹, Chao Li¹, Lixin Bai¹ ¹Institute of Acoustics, Chinese Academy of Sciences, Beijing, China, People's Republic of</p>	<p>P4A1-3 Development of practical ball surface acoustic wave trace moisture analyzer by undersampling</p> <p>Toshihiro Tsuji¹, Toru Oizumi¹, Nobuo Takeda¹, Singo Akao¹, Yusuke Tsukahara¹, Kazushi Yamanaka¹ ¹Tohoku University, Sendai, Japan</p>	<p>P4A2-4 High-Q piezoelectric Lamb wave resonators based on AIN plates with chamfered corners</p> <p>Chih-Ming Lin¹, Jie Zou¹, Yung-Yu Chen², Albert Pisano³ ¹Mechanical Engineering, University of California, Berkeley, CA, USA, ²Mechanical Engineering, Tatung University, Taipei, Taiwan, ³Mechanical and Aerospace Engineering, University of California, San Diego, CA, USA</p>

<p>P2A2-4 Detection of Delamination in Concrete Medium Using Rayleigh Waves</p> <p>Debdutta Ghosh¹, Surendra Beniwal¹, Abhijit Ganguli¹ ¹Civil Engineering, Indian Institute of Technology Delhi, Delhi, India</p>	<p>P2A3-7 Instrument for Rock Bolt Inspection by Means of Ultrasound</p> <p>Tadeusz Stepinski¹, Karl-Johan Mattsson² ¹WIMR, AGH Univ. of Science and Technology, Krakow, Poland, ²Geosigma AB, Sweden</p>	<p>P3A1-7 A basic study of technique for stirring of liquid in non-contact way using high-intensity aerial ultrasonic waves</p> <p>Taichi Urakami¹, Ayumu Osumi¹, Youich Itoh¹ ¹Nihon University, Japan</p>	<p>P4A1-4 Stabilization of SAW atomizer for a wearable olfactory display</p> <p>Kazuki Hashimoto¹, Takamichi Nakamoto¹ ¹Tokyo Institute of Technology, Kanagawa-Ken, Japan</p>	<p>P4A2-5 HBAR AS HIGH FREQUENCY HIGH STRESS GENERATOR</p> <p>Tanay Gosavi¹, Evan MacQuarrie¹, Gregory Fuchs¹, Sunil Bhawe² ¹Cornell University, NY, USA, ²Analog Devices Inc, Woburn, MA, USA</p>
<p>Session P2A3. Flaw Detection</p> <p><i>Chair: Erdal Oruklu</i> Illinois Institute of Technology</p>	<p>Session P3A1. General Physical Acoustics</p> <p><i>Chair: Yook-Kong Yong</i> Rutgers University</p>	<p>P3A1-8 Composite Lateral Electric Field Excited Piezoelectric Resonator</p> <p>Boris Zaitsev¹, Alexander Shikhabudinov¹, Andrey Teplykh¹, Irina Borodina¹, Iren Kuznetsova² ¹Saratov Branch, Kotel'nikov's Institute of Radio Engineering and Electronics of RAS, Russian Federation, ²Kotel'nikov's Institute of Radio Engineering and Electronics of RAS, Russian Federation</p>	<p>P4A1-5 Conductivity measurement of liquid by SH-SAW sensor consisting of IDT/(11-20) oriented ZnO film/silica glass substrate</p> <p>Shoko Hiyama¹, Takahiko Yanagitani², Shinji Takayanagi¹, Mami Matsukawa¹ ¹Wave electronics research center, Laboratory of Ultrasonic Electronics, Doshisha university, Kyoto, Japan, ²Waseda University, Tokyo, Japan</p>	<p>Session P4A3. Materials & Propagation</p> <p><i>Chair: Sergei Zhgoon</i> National Research University Moscow Power Engineering Institute</p>
<p>P2A3-1 Nonlinear Rayleigh Surface Acoustic Waves for Determining Yielding of Alloys</p> <p>Kui Yao¹, Shifeng Guo¹, Lei Zhang¹, Shuting Chen¹, Yi Fan Chen¹, Meysam Sharifzadeh Mirshekarloo¹, Huajun Liu¹, Zhiyuan Shen¹ ¹Institute of Materials Research and Engineering, A*STAR(Agency for Science, Technology and Research), Singapore</p>	<p>P3A1-1 Lateral Electric Field Excited Resonator Based On Pzt Ceramics</p> <p>Andrey Teplykh¹, Boris Zaitsev¹, Iren Kuznetsova² ¹Kotel'nikov Institute of Radio Engineering and Electronics of RAS, Saratov Branch, Saratov, Russian Federation, ²Kotel'nikov Institute of Radio Engineering and Electronics of RAS, Moscow, Russian Federation</p>	<p>P3A1-9 Influence of Liquid on Properties of Backward Acoustic Waves in Piezoelectric Plates</p> <p>Iren Kuznetsova¹, Boris Zaitsev², Ilya Nedospasov¹, Anastasia Kuznetsova² ¹Moscow Department, Kotel'nikov Institute of RadioEngineering and Electronics of RAS, Moscow, Russian Federation, ²Saratov Department, Kotel'nikov Institute of RadioEngineering and Electronics of RAS, Saratov, Russian Federation</p>	<p>P4A1-6 Comparative analysis of the experience obtained from the use of SAW and BAW wireless resonator temperature sensors for surgery</p> <p>Ivan Ancev¹, Sergei Bogoslovsky¹, Gennadiy Sapozhnikov¹, Sergei Zhgoon², Alexander Shvetsov² ¹Joint Stock Company "NPP "Radar mms", St Petersburg, Russian Federation, ²MPEI, Moscow, Russian Federation</p>	<p>P4A3-1 Investigation on Surface Acoustic Wave propagation for a non-planar piezoelectric thin film device</p> <p>Mohanraj Soundara pandian¹, Eloi Marigo Ferrer¹, Muniandy Shummugam¹, Rubiyatulniza Binti Hussain¹, Charlie Tay Wee Song¹, Jazril Bin Jamil Din¹, Chan Buan Fei¹, Venkatesh Madhavan¹, Arjun Kumar Kantimahanti¹, Aamir Farooq Malik², Varun Jeoti² ¹SiTerra Malaysia Sdn Bhd, Kulim, Kedah, Malaysia, ²Universiti Teknologi PETRONAS, Malaysia</p>
<p>P2A3-2 Combination of direct, half-skip and full-skip TFM to characterize multi-faceted crack in weld</p> <p>Xiaohi Han¹, Wentao Wu^{1,2}, Ping Li¹, Jing Lin² ¹Institute of Acoustics, Chinese Academy of Sciences, China, People's Republic of, ²State Key Laboratory for Manufacturing System Engineering, Xi'an Jiaotong University, Sha'nx, China, People's Republic of</p>	<p>P3A1-2 "Inverse method for evaluation of elastic parameters in functionally graded materials using ultrasonic Love waves"</p> <p>Piotr Kielczynski¹, Marek Szalewski¹, Andrzej Balcerzak¹, Krzysztof Wieja¹ ¹Polish Academy of Sciences, Poland</p>	<p>P3A1-10 A Conservative Edge-free and Corner-free Finite Difference Method Formulation for Analysing Mass-loading Problems in Three Dimensions</p> <p>Ireka Ikenna¹, Mebratu Fenta¹, alireza baghai-wadji² ¹Department of Mathematics and Applied Mathematics Mathematics, University of Cape Town, Cape Town, South Africa, ²Electrical Engineering, University of Cape Town, Cape Town, South Africa</p>	<p>Session P4A2. Microacoustic Resonators</p> <p><i>Chair: Maximilian Pitschi</i> TDK Corporation</p>	<p>P4A3-2 Effect of Sintering temperature on the Dielectric and Piezoelectric Properties of (Na0.525K0.443Li0.037)(Nb0.883Sb0.08Ta0.037)O3 Ceramics for piezoelectric Actuators</p> <p>Gwang Min Lee¹, Ju Hyun Yoo^{1,2}, Yeong Ho Jeong³, Lark Hoon Hwang¹ ¹Semyung University, Republic of Korea, ²Electrical Engineering, Semyung University, Jecheon, Chungbuk, Republic of Korea, ³Korea National University of Transportation, Republic of Korea</p>

8:00 am - 5:00 pm

Poster --- Thursday, October 22, 2015

4th floor

<p>P4A3-3 Plate Modes in Langanite</p> <p>Natalya Naumenko¹ ¹Acousto-optical Research Center, National University of Science and Technology, Moscow, Russian Federation</p>	<p>Session P5A2. Thick and Thin Films</p> <p>Chair: Yasuhito Takeuchi Asahikawa Medical University</p>	<p>P5A2-8 Characterization of a MEMS 3D Piezoelectric Ultrasound Transducer for Portable Imaging Systems</p> <p>Corina Nistorica¹, Dimitre Latev¹, Deane Gardner¹, Darren Imai¹, Chris Daft² ¹FUJIFILM Dimatix, Inc, USA, ²River Sonic Solutions, USA</p>		
<p>P4A3-4 Measurements of Acoustical Physical Constants for Ca₃Nb(Ga_{0.75}Al_{0.25})₃Si₂O₁₄ Single Crystal Using the Ultrasonic Microspectroscopy System</p> <p>Yuji Ohashi¹, Yuui Yokota¹, Tetsuo Kudo¹, Shunsuke Kurosawa¹, Kei Kamada^{1,2}, Akira Yoshikawa^{1,2} ¹Tohoku University, Japan, ²C&A Co., Japan</p>	<p>P5A2-1 (100)-Textured Lead-free KNN-based Thick Film for IVUSE™>50MHz@Imaging</p> <p>Benpeng Zhu¹, Teng Ma², Yongxiang Li³, Xiaofei Yang¹, K.kirk Shung², Qifa Zhou² ¹Huazhong University of Science and Technology, China, People's Republic of,²Department of Biomedical Engineering, NIH Transducer Resource Center, University of Southern California, USA,³Key Laboratory of Inorganic Functional Materials and Devices, Chinese Academy of Sciences, China, People's Republic of</p>	<p>Session P5A3. Transducer Design and Modeling</p> <p>Chair: Yasuhito Takeuchi Asahikawa Medical University</p>		
<p>P4A3-5 Loss Reduction of Leaky Surface Acoustic Wave by Loading with High-Velocity Thin Film</p> <p>Shoji Kakio¹, Keiko Hosaka¹ ¹Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Japan</p>	<p>P5A2-2 Domain Engineering in Epitaxial Ferroelectric Thin Films</p> <p>Mahamudu Mtebwa¹, Nava Setter¹ ¹Ceramics Laboratory, EPFL, Lausanne, Switzerland</p>	<p>P5A3-1 Design of a bullet beam pattern of an ultrasound transducer by use of a multifocal lens and a shaded electrode</p> <p>Euna Choi¹, Yongrae Roh¹ ¹School of Mechanical Engineering, Kyungpook National University, Daegu, Korea, Republic of</p>		
<p>Session P5A1. Transducer Materials</p> <p>Chair: Yasuhito Takeuchi Asahikawa Medical University</p>	<p>P5A2-3 High power piezoelectric characteristics of KNbO₃ thick films by hydrothermal method.</p> <p>Mutsuo Ishikawa¹, Yousuke Uchida¹, Motoko Shibuya¹, Nobuaki Kosuge¹, Minoru Kurosawa², Hiroshi Funakubo² ¹Toin Univ. of Yokohama, Japan,²Tokyo Inst. of Tech., Japan</p>	<p>P5A3-2 Impedance Conversion of Matching Layer for Air Ultrasonic Transducers</p> <p>Minoru Toda¹, Minoru Toda² ¹Sensor Solution, TE Connectivity, USA, ²TE Connectivity, USA</p>		

<p>P5A1-1 Novel Spring-Mass Matching Layer Fabrication for Ultrasound Transducers</p> <p>Mikel Gorostiaga¹, Matthias C. Wapler¹, Ulrike Wallrabe¹ ¹Department of Microsystemengineering, Laboratory for Microactuators, IMTEK - University of Freiburg, Freiburg im Breisgau, Germany</p>	<p>P5A2-4 Fundamental Study on the Miniature Coiled Stator-UltraSound Motor with hydrothermally synthesized lead zirconate titanate poly-crystalline film transducer for medical applications</p> <p>Seiya Ozeki¹, Toshinobu Abe¹, Tadashi Moriya², Takasuke Irie³, Minoru Kurosawa⁴, Shinichi Takeuchi¹ ¹Clinical Engineering, Toin University of YOKOHAMA, Yokohama, kanagawa, Japan, ²Tokyo Metropolitan University, Hino, Tokyo, Japan, ³Microsonic Co., Ltd., Kokubunji, Tokyo, Japan, ⁴Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology, Yokohama, Kanagawa, Japan</p>	<p>P5A3-3 Diffraction loss calculation based on boundary element method for an air-coupled phased array</p> <p>Rene Golinske¹, Maik Hoffmann¹, Eric Konetzke¹, Alexander Unger², Matthias Rutsch², Mario Kupnik² ¹BTU Cottbus-Senftenberg, Germany, ²Technische Universität Darmstadt, Germany</p>		
<p>P5A1-2 Additive manufacture of impedance matching layers for air-coupled ultrasonic transducers</p> <p>Sivaram Nishal Ramadas^{1,2}, Michael Hunter¹, John Thornby³, Chris Purssell⁴, Simon Leigh⁴, Steven Dixon¹ ¹Physics, University of Warwick, United Kingdom, ²Elster Instronet, Belgium, ³WMG, University of Warwick, United Kingdom, ⁴School of Engineering, University of Warwick, United Kingdom</p>	<p>P5A2-5 Electrical and Acoustic Characterization of Scandium Aluminum Nitride (ScAlN) Piezoelectric Micromachined Ultrasonic Transducers (PMUT)</p> <p>Panu Koppinen¹, Sergey Gorelick¹, Feng Gao¹, James Dekker¹, Tommi Riekkinen¹, Alessandro Caspani² ¹Knowledge Intensive Products and Services, VTT Technical Research Centre of Finland Ltd, Espoo, Finland, ²Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano, Milano, Italy</p>	<p>P5A3-4 Optimization of the Structure of 1-3 Piezocomposite Materials to Maximize the Performance of an Underwater Transducer</p> <p>Yongrae Roh¹, Haejune Park¹ ¹School of Mechanical Engineering, Kyungpook National University, Daegu, Korea, Republic of</p>		
<p>P5A1-3 1-3 piezocomposites based on super-cell structuring for transducer applications</p> <p>Remi Rouffaud¹, Franck Levassort¹, Mai PhanThi², Claire Bantignies³, Marc Lethiecq¹, Anne-Christine Hladky-Hennion¹ ¹GREMAN UMR 7347 CNRS, François-Rabelais University, Tours, France, ²Thales Research & Technology, Palaiseau, France, ³VERMON SA, Tours, France, ⁴ISEN, IEMN UMR 8520 CNRS, Lille, France</p>	<p>P5A2-6 Development of anti-cavitation hydrophone with hydrothermal PZT film - Estimation of durability-</p> <p>Michihisa Shiiba^{1,2}, Nagaya Okada³, Minoru Kurosawa⁴, Shinichi Takeuchi¹ ¹Toin University of Yokohama, Japan, ²Research Fellow of Japan Society for the Promotion of Science, Japan, ³Honda Electronics Co., Ltd., Japan, ⁴Tokyo Institute of Technology, Japan</p>	<p>P5A3-5 A feasibility study of angled backing structure using FEM Simulation for lightweight ultrasound transducer</p> <p>Seon Mi Ji¹, Sung Min Kim¹, Jong Seob Jeong¹ ¹Medical Biotechnology, Dongguk University, Gyeonggi-do, Korea, Republic of</p>		
<p>P5A1-4 Design and Fabrication of Lead-free BNT Film High Frequency Ultrasound Transducers</p> <p>Wei Ren¹ ¹Electronic Materials Research Laboratory, Key Laboratory of the Ministry of Education, Xi'an Jiaotong University, China, People's Republic of</p>	<p>P5A2-7 Influence of Tough Hydrophone Shapes with Titanium Front Plate and Hydrothermal PZT Thick Film on Distribution of Acoustic Bubbles around Focal Point of HIFU Transducer</p> <p>Nagaya Okada¹, Michihisa Shiiba², Minoru K. Kurosawa³, Shinichi Takeuchi² ¹Research and Development Div., HONDA ELECTRONICS CO., LTD., Japan, ²Department of Clinical Engineering, Faculty of Biomedical Engineering, Toin University of Yokohama, Japan, ³Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology, Japan</p>			