

<p>Session P1B1. Elasticity Imaging Methods</p> <p><i>Chair: Hendrik Hansen</i> <i>Radboud University Medical Center</i></p>	<p>P1B1-8 Spatial Variance Induced by Tissue Compression in Ultrasound Shear Wave Imaging</p> <p>Hideki Yoshikawa¹, Teruyuki Sonoyama², Noriaki Inoue³, Ken-ichi Kawabata¹ ¹Hitachi, Ltd., Tokyo, Japan, ²Engineering R&D Department 1, Hitachi Aloka Medical, Ltd., Tokyo, Japan</p>	<p>P1B2-4 Ultrasound-enhanced extravasation of dual-modality multifunctional nanodroplets</p> <p>Yujin Zong¹, Xinru Zou¹, Rongrong Wang¹, Yi Feng¹, Xuan Du¹, Mingxi Wan¹ ¹The Key Laboratory of Biomedical Information Engineering of Ministry of Education, Xi'an Jiaotong University, Xi'an, Shaanxi, China, People's Republic of</p>	<p>P1B3-4 Effects of coherent compounding on Pulse Wave Imaging (PWI) in phantoms and <i>in vivo</i></p> <p>Iason Zacharias Apostolakis¹, Ronny Li¹, Matthew McGarry¹, Ethan Bunting¹, Elisa Konofagou^{1,2} ¹Biomedical Engineering, Columbia University, New York, New York, USA, ²Radiology, Columbia University, New York, New York, USA</p>	<p>P1B4-4 Copolymer-in-oil phantoms for photoacoustic imaging</p> <p>Luciana Cabrelli¹, Diego Sampaio¹, Joao Uliana¹, Alessandro Deana², Antonio Carneiro¹, Theo Pavan¹ ¹Department of Physics, University of Sao Paulo, Ribeirão Preto, Brazil, ²Department of Biophotonics, Universidade Nove de Julho, Sao Paulo, Brazil</p>
<p>P1B1-1 Regularized, Weighted Temporal Multiresolution Speckle Tracking of Small Displacements in Ultrasound</p> <p>Peter Hollender¹, Vignesh Vudatha¹, Gregg Trahey^{1,2} ¹Biomedical Engineering, Duke University, Durham, North Carolina, USA, ²Radiology, Duke University Medical Center, Durham, North Carolina, USA</p>	<p>P1B1-9 A reliability index of shear wave speed measurement for shear wave elastography</p> <p>Kiwan Choi¹, Junho Park¹, Donggoen Kong¹, Hyoung-Ki Lee¹ ¹Ultrasound R&D Group, Samsung Electronics, Seoul, Korea, Republic of</p>	<p>P1B2-5 Evaluation the potential of the hair growth enhancements with ultrasound-mediated minoxidil loaded microbubbles cavitation</p> <p>Ai-ho Liao¹, Ying-jui Lu¹ ¹National Taiwan University of Science and Technology, Taiwan</p>	<p>P1B3-5 Atlas-based mosaicing of 3D transeophageal echocardiography images of the left atrium</p> <p>Harriët W. Mulder¹, Josien P.W. Pluim¹, Ben Ren², Alexander Haak³, Max A. Viergever¹, Johan G. Bosch³, Marijn van Stralen¹ ¹Imaging Division, UMC Utrecht, Utrecht, Netherlands, ²Cardiology, Erasmus MC Rotterdam, Rotterdam, Netherlands, ³Biomedical Engineering, Erasmus MC Rotterdam, Rotterdam, Netherlands</p>	<p>P1B4-5 NIR Photoacoustic Spectroscopy for Continuous Non-Invasive Glucose Monitoring</p> <p>Praful Pai¹, Pradyut Sanki¹, Arijit De¹, Swapna Banerjee¹ ¹Department of Electronics and Electrical Communication Engineering, Indian Institute of Technology Kharagpur, Kharagpur, West Bengal, India</p>
<p>P1B1-2 On-Axis Radiation-Force-based quantitative stiffness estimation with a Bayesian displacement estimator</p> <p>Kristy Walsh¹, Douglas Dumont¹, Mark Palmeri², Brett Byram¹ ¹Biomedical Engineering, Vanderbilt University, Nashville, TN, USA, ²Biomedical Engineering, Duke University, Durham, NC, USA</p>	<p>P1B1-10 Pixel-based ultrasound image reconstruction: impact of grid size on signal frequency content</p> <p>Mahdi Bayat¹, Alireza Nabavizadeh^{1,2}, Azra Alizad^{1,2}, Mostafa Fatemi¹ ¹Physiology and Biomedical Engineering, Mayo Clinic, Rochester, MN, USA, ²Biomedical Informatics and Computational Biology, University of Minnesota, Rochester, MN, USA, ³Department of Internal Medicine, Mayo Clinic, Rochester, MN, USA</p>	<p>P1B2-6 Quantification of endothelial $\alpha\beta 3$ expression with high frequency ultrasound and targeted microbubbles: <i>in vitro</i> and <i>in vivo</i> studies</p> <p>Verya Daechin¹, Ilya Skachkov¹, Judith C. Sluimer², Johan G. Bosch¹, Klazina Kooiman¹, Andrew Needles³, Ben Janssen¹, Mat J.A.P. Daemen⁴, Antonius van der Steen^{1,6}, Nico de Jong^{1,6} ¹Thoraxcenter Biomedical Engineering, Erasmus MC, Rotterdam, Netherlands, ²Pathology, CARIM, Maastricht University, Netherlands, ³FUJIFILM VisualSonics, Inc., Canada, ⁴Pharmacology, CARIM, Maastricht University, Netherlands, ⁵Pathology, AMC, Netherlands, ⁶Technical University Delft, Netherlands</p>	<p>P1B3-6 Estimation of Flow Mediated Vasodilatation of the radial artery</p> <p>Andrzej Nowicki¹, Robert Olszewski², Wojciech Secomski¹, Marcin Lewandowski¹, Michal Byra¹ ¹Ultrasound, Institute of Fundamental Technological Research, Warsaw, Poland, ²Cardiology and Internal Medicine, Military Institute of Medicine, Warsaw, Poland</p>	<p>P1B4-6 <i>In Vivo</i> Assessment of Protease Activity in Colorectal Cancer by Using Activatable Molecular Photoacoustic Imaging</p> <p>Cheng LIU¹, Qijin HE¹, Yaoheng YANG¹, Zhihai QIU¹, Yongmin HUANG¹, Thomas Ming-Hung LEE¹, Lei SUN¹ ¹Interdisciplinary Division of Biomedical Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, HONG KONG, China, People's Republic of</p>
<p>P1B1-3 Crawling Waves Shear Wave Speed Estimation using Null Space Pursuit and AM-FM demodulation</p> <p>Renán Rojas¹, Juvenal Ormachea², Kevin Parker², Benjamin Castañeda¹ ¹Departamento de Ingeniería, Sección Electricidad y Electrónica, Pontificia Universidad Católica del Perú, Lima, Peru, ²Department of Electrical & Computer Engineering, University of Rochester, Rochester, New York, USA</p>	<p>P1B1-11 A Shear Wave Propagation Tracking Method Based on Modal Assurance Criterion in Acoustic Radiation Force Impulse Imaging</p> <p>Yang Jiao¹, Jie Xu¹, Yongjia Xiang¹, Tianming Gu¹, Yaoyao Cui¹ ¹Suzhou Institute of Biomedical Engineering and Technology, CAS, Suzhou, Jiangsu, China, People's Republic of</p>	<p>P1B2-7 Subharmonic Threshold for Chirp Excitations of High Frequency Contrast Agents</p> <p>John Allen¹, Rintaro Hayashi¹, Parag Chitnis², Jonathan Mamou³, Jeffrey Ketterling² ¹Mechanical Engineering, University of Hawaii, Honolulu, Hawaii, USA, ²Department of Bioengineering, George Mason University, Fairfax, Virginia, USA, ³Riverside Research Institute, New York City, New York, USA</p>	<p>P1B3-7 Electromechanical Eave Imaging of atrial tachycardia and myocardial infarct <i>in vivo</i>: a feasibility study</p> <p>Alexandre Costet¹, Ethan Bunting², Elaine Wan³, Elisa Konofagou^{2,4} ¹Biomedical Engineering, Columbia University, New York, New York, USA, ²Biomedical Engineering, Columbia University, New York, NY, USA, ³Medicine Cardiology, Columbia University Medical Center, New York, New York, USA, ⁴Radiology, Columbia University, New York, NY, USA</p>	<p>P1B4-7 Optical-resolution photoacoustic endoscope</p> <p>Ruimin Chen¹, Joon-Mo Yang², Chiye Li², Bin Rao², Junjie Yao², Cheng-Hung Yeh², Amos Danielli², Konstantin Maslov², K. Kirk Shung¹, Qifa Zhou¹, Lihong V. Wang² ¹Ultrasonic Transducer Resource Center, Department of Biomedical Engineering, University of Southern California, Los Angeles, California, USA, ²Optical Imaging Laboratory, Department of Biomedical Engineering, Washington University in St. Louis, St. Louis, Missouri, USA</p>

<p>P1B1-4 Near Field Shear Wave Elasticity Imaging with High Frequency Single Element Transducers</p> <p>Nien-Ching Ho¹, Pai-Chi Li² ¹Biomedical Electronics and Bioinformatics, National Taiwan University, Taipei, Taiwan, ²Electrical Engineering, National Taiwan University, Taipei, Taipei, Taiwan, Taiwan</p>	<p>Session P1B2. MCA: Microbubbles and Nanodroplets</p> <p><i>Chair: Lori Bridal</i> Univ. Pierre and Marie Curie</p>	<p>Session P1B3. MIM: Cardiovascular Imaging and Mechanics</p> <p><i>Chair: Richard Lopata</i> Technical University Eindhoven</p>	<p>Session P1B4. MPA: Photoacoustics</p> <p><i>Chair: Richard Lopata</i> Technical University Eindhoven</p>	<p>P1B4-8 Low power continuous wave photoacoustic microscope for bioimaging applications</p> <p>Sathiyamoorthy Krishnan¹, Michael Kolios¹ ¹Department of physics, Ryerson university, Toronto, Ontario, Canada</p>
<p>P1B1-5 Effects of Aberration in Crawling Wave Sonoelastography</p> <p>Gabriela Torres¹, Kevin Parker², Roberto Lavarello¹, Benjamin Castaneda¹ ¹Electrical Engineering, Pontificia Universidad Catolica del Peru, Lima, Lima, Peru, ²Electrical and Computer Engineering, University of Rochester, Rochester, USA</p>	<p>P1B2-1 Cosolvent-infused precursor bubbles and droplets for production of ultra-small, ultrasound-activatable, nanoscale perfluorocarbon agents</p> <p>Minseok Seo¹, Siqi Zhu¹, Ross Williams¹, Naomi Matsuura² ¹Sunnybrook Research Institute, Canada, ²University of Toronto, Canada</p>	<p>P1B3-1 Full-cycle left ventricular segmentation and tracking in 3D echocardiography using active appearance models</p> <p>Marijn van Stralen¹, Alexander Haak², Esther Leung³, Gerard van Burken², Clemens Bosch¹, Johan Bosch² ¹Imaging Division, UMC Utrecht, Utrecht, Netherlands, ²Biomedical Engineering, Erasmus MC Rotterdam, Rotterdam, Netherlands, ³Albert Schweitzer Hospital, Dordrecht, Netherlands</p>	<p>P1B4-1 Optimizing Simultaneous Multispectral Emission Photoacoustics</p> <p>Martin F Beckmann¹, Hans-Martin Schwab¹, Georg Schmitz¹ ¹Chair for Medical Engineering, Ruhr-Universität Bochum, Bochum, Germany</p>	<p>P1B4-9 Optical and Acoustic Observation of Photodisruption in Two Liquid Perfluorocarbons Induced by Nanosecond Laser</p> <p>Yi Feng¹, Dui Qin¹, Yujing Zong¹, 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>P1B1-6 Acoustic particle palpation – a feasibility study on a novel stress source for elasticity imaging</p> <p>Hasan Koruk^{1,2}, Ahmed El Ghamrawy¹, Mengxing Tang¹, James Choi¹ ¹Department of Bioengineering, Imperial College London, London, United Kingdom, ²Mechanical Engineering Department, MEF University, Istanbul, Turkey</p>	<p>P1B2-2 Influence of the surrounding media on the acoustic behavior of gas vesicle nanostructures at high ultrasound frequencies</p> <p>Emmanuel Cherin¹, Raymond W. Bourdeau², Melissa Yin¹, Mikhail G. Shapiro², F. Stuart Foster¹ ¹Imaging Research, Sunnybrook Research Institute, Toronto, Ontario, Canada, ²Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, California, USA</p>	<p>P1B3-2 Optimization-based speckle tracking algorithm for LV strain estimation</p> <p>Hanan Khamis¹, Nahum Smirin¹, Zvi Friedman², Dan Adam¹ ¹Department of Biomedical Engineering, Technion-Israel Institute of Technology, Haifa, Israel, ²GE Ultrasound, Tirat Hacarmel, Israel</p>	<p>P1B4-2 Dual-modal photoacoustic ocular imaging</p> <p>Changhui Li¹, Ning Wu², Xiaoyi Zhu² ¹Biomedical Engineering, Peking University, China, People's Republic of, ²Peking University, China, People's Republic of</p>	<p>P1B4-10 X-ray acoustic imaging for external beam radiation therapy dosimetry using a commercial ultrasound scanner</p> <p>Diego Sampaio¹, Joao Uliana¹, Juliana Pavoni¹, Leandro Borges², Antonio Carneiro¹, Theo Pavan¹ ¹Department of Physics, University of Sao Paulo, Ribeirão Preto, Brazil, ²Radiotherapy Service, University of Sao Paulo, Ribeirão Preto, Brazil</p>
<p>P1B1-7 Novel imaging method of continuous shear wave by ultrasonic color flow imaging</p> <p>Yoshiki Yamakoshi¹, Atsushi Yamamoto², Yasushi Yuminaka¹, Naoki Sunaguchi¹ ¹Grad. School of Science and Technology, Gunma University, Kiryu, Japan, ²Department of Orthopaedic Surgery, Graduate School of Medicine, Gunma University, Maebashi, Japan</p>	<p>P1B2-3 Nonlinear Acoustic Properties Characterization of Nano Size Gas Vesicles</p> <p>Yaoheng Yang¹, Yongmin Huang¹, Zhihai Qiu¹, Cheng Liu¹, Jiyan Dai², Lei Sun¹ ¹Interdisciplinary Division of Biomedical Engineering, The Hong Kong Polytechnic University, Hong Kong, ²Department of Applied Physics, The Hong Kong Polytechnic University, Hong Kong</p>	<p>P1B3-3 Tracking quality in plane-wave versus conventional cardiac ultrasound: a preliminary evaluation in-silico based on a state of the art simulation pipeline</p> <p>Martino Alessandrini¹, Brecht Heyde¹, Ling Tong^{1,2}, Olivier Bernard³, Jan D'hooge¹ ¹Cardiovascular Imaging and Dynamics, KU Leuven, Leuven, Belgium, ²Center for Biomedical Imaging Research, Dept. of Biomedical Engineering, Tsinghua University, China, People's Republic of, ³CNRS UMR 5220: INSERM U1044; Université Lyon 1; INSA Lyon, Lyon, France</p>	<p>P1B4-3 Photoacoustic imaging of human inflammatory arthritis</p> <p>Xueding Wang¹, Janggun Jo², Guan Xu³, Sheeja Francis³, April Marquardt³, Jie Yuan⁴, Gandikota Girish³ ¹Biomedical Engineering, University of Michigan, Ann Arbor, Michigan, USA, ²Radiology, University of Michigan, USA, ³University of Michigan, USA, ⁴Nanjing University, USA</p>	<p>Session P1B5. MTH: Ultrasound-Mediated Agent Delivery</p> <p><i>Chair: John Hossack</i> Univ. of Virginia</p>

<p>P1B5-1 PET and fluorescence imaging demonstrate nanoparticle delivery and accumulation in a mouse breast tumor model using microbubbles-mediated ultrasound treatment</p> <p>Josquin Foiret¹, Hua Zhang¹, Lisa M. Mahakian¹, Sara M. Tam¹, Jai Woong Seo¹, Katherine W. Ferrara¹ ¹Department of Biomedical Engineering, University of California, Davis, USA</p>	<p>Session P1B6. MTC: Soft Tissue Characterization</p> <p>Chair: Lori Bridal Univ. Pierre and Marie Curie</p>	<p>P1B6-8 Feasibility of acoustic evaluation of thermal lesions at bone-soft tissue interface of an ex vivo bovine bone exposed to high-intensity focused ultrasound</p> <p>Siyuan Zhang¹, Zhiwei Cui¹, Lei Zhang¹, Xingguang Zhu¹, Tianqi Xu¹, Supin Wang¹, Mingxi Wan¹ ¹Department of Biomedical Engineering, Xi'an Jiaotong University, Xi'an, China, People's Republic of</p>	<p>Session P1B7. MBF: Flow Estimation Strategies: From 1D to 3D</p> <p>Chair: Jørgen Jensen Technical University of Denmark</p>	<p>P1B7-8 In-vivo High Dynamic Range Vector Flow Imaging</p> <p>Carlos Armando Villagómez Hoyos¹, Matthias Bo Stuart¹, Jørgen Arendt Jensen¹ ¹Technical University of Denmark, Denmark</p>
<p>P1B5-2 Feasibility of Ultrasound Assisted Drug Delivery (UADD) via Noninvasive High Frequency Intense Therapy Ultrasound</p> <p>Michael Slayton¹, Paul Jaeger² ¹Guided Therapy Systems, Mesa, AZ, USA, ²Ardent Sound, Inc., Mesa, AZ, USA</p>	<p>P1B6-1 Evaluation of ultrasound B-mode images of liver fibrosis using fibrotic probability image based on multi-Rayleigh model</p> <p>Shohei Mori¹, Shinnosuke Hirata¹, Tadashi Yamaguchi², Hiroyuki Hachiya¹ ¹Tokyo Institute of Technology, Tokyo, Japan, ²Chiba University, Chiba, Japan</p>	<p>P1B6-9 High-Resolution Strain and Strain Rate Imaging of Adult Zebrafish Myocardium</p> <p>Chen Ho-Chiang¹, Chih-Chung Huang¹ ¹Department of Biomedical Engineering, National Cheng Kung University, Taiwan</p>	<p>P1B7-1 Real-time pulse compression in multigate spectral Doppler imaging</p> <p>Alessandro Ramalli¹, Alessandro Dallai¹, Enrico Boni¹, Francesco Guidi¹, Stefano Ricci¹, Piero Tortoli¹ ¹Information Engineering Department, University of Florence, Firenze, Italy</p>	<p>P1B7-9 3-D Vector Flow Estimation with Row-Column Addressed Arrays</p> <p>Simon Holbek¹, Thomas Lehrmann Christiansen², Morten Fischer Rasmussen¹, Matthias Bo Stuart¹, Erik Vilain Thomsen², Jørgen Arendt Jensen¹ ¹Department of Electrical Engineering, Technical University of Denmark, Lyngby, Denmark, ²Department of Micro- and Nanotechnology, Technical University of Denmark, Lyngby, Denmark</p>
<p>P1B5-3 Efficient generation of reactive oxygen species sonochemically generated by cavitation bubbles</p> <p>Jun Yasuda¹, Shin Yoshizawa¹, Shin-ichiro Umemura² ¹Department of Communications Engineering, Tohoku Univ., Sendai, Japan, ²Department of Biomedical Engineering, Tohoku Univ., Sendai, Japan</p>	<p>P1B6-2 Backscatter coefficient estimation from human thyroids in vivo</p> <p>Tony Cueva¹, Julien Rouyer¹, Alberto Portal², Tamy Yamamoto², Roberto Lavarello¹ ¹Departamento de Ingeniería, Pontificia Universidad Católica del Perú, San Miguel, Lima, Peru, ²Departamento de Radiología, Clínica Centenario Peruano Japonesa, Pueblo Libre, Lima, Peru</p>	<p>P1B6-10 Relation between Speed of Sound Measured by Using Ultrasound and Magnetic Resonance Images and Elasticity in Tissue-Engineered Cartilage</p> <p>Naotaka Nitta¹, Masaki Misawa¹, Koji Hyodo¹, Yoshio Shirasaki¹, Kazuhiko Hayashi¹, Kazuhiro Homma¹, Tomokazu Numano² ¹National Institute of Advanced Industrial Science and Technology (AIST), Japan, ²Tokyo Metropolitan University, Japan</p>	<p>P1B7-2 A robust spectral envelope detection algorithm for automated blood flow measurements</p> <p>Aditi Kathpalia^{1,2}, Yücel Karabiyik², Bente Simensen³, Eva Tegnander^{3,4}, Sturla Eik-Nes^{3,4}, Hans Torp², Ingvid Kinn Ekroll^{2,5}, Gabriel Kiss² ¹School of Biomedical Engineering, Indian Institute of Technology (BHU), Varanasi, India, ²Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Trondheim, Norway, ³National Center for Fetal Medicine (NCFM), St. Olavs Hospital, Trondheim, Norway, ⁴Department of Laboratory Medicine, Children's and Women's Health (LBK), NTNU, Trondheim, Norway, ⁵St. Olavs Hospital, Trondheim, Norway</p>	<p>P1B7-10 Velocity vector in three dimensions using a high-frame-rate dual-array setup</p> <p>Pieter Kruizinga^{1,2}, Hendrik J Vos^{1,2}, Johannes G Bosch¹, Antonius FW van der Steen^{1,2}, Nico de Jong^{1,2} ¹Thorax Center - Biomedical Engineering, Erasmus Medical Center, Rotterdam, Netherlands, ²Faculty of Applied Sciences - Acoustical Wavefield Imaging, Delft University of Technology, Delft, Netherlands</p>
<p>P1B5-4 Uptake and Cellular Recovery Mechanisms in Microbubble-enhanced Ultrasound Delivery of Nanoparticles for Cancer Therapy</p> <p>Lee Terron¹, Maria De Scirilli^{1,2}, Julien Rebound¹, Catherine Berry³, Helen Mulvana¹ ¹School of Engineering, University of Glasgow, Glasgow, United Kingdom, ²Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Turin, Piedmont, Italy, ³Centre for Cell Engineering, University of Glasgow, Glasgow, United Kingdom</p>	<p>P1B6-3 Correcting the influence of tissue attenuation on Nakagami distribution shape parameter estimation</p> <p>Michal Byra¹, Andrzej Nowicki¹, Hanna Piotrkowska-Wroblewska¹, Katarzyna Dobruch-Sobczak^{1,2}, Jerzy Litniewski¹ ¹Ultrasound Department, Institute of Fundamental Technological Research PAS, Warsaw, Poland, ²Maria Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, Poland</p>	<p>P1B6-11 Activation of Mechanosensitive Transcription Factors in murine C2C12 myoblasts by Focused Low-Intensity Pulsed Ultrasound (FLIPUS).</p> <p>Regina Puts¹, Paul Rikeit², Karen Ruschke², Soyoung Hwang³, Petra Knaus^{1,2}, Kay Raum¹ ¹Berlin-Brandenburg School for Regenerative Therapies, Charité Universitaet Berlin, Berlin, Germany, ²Biochemistry, Freie Universitaet Berlin, Berlin, Germany, ³Department of Biotechnology, Technische Universitaet Berlin, Berlin, Germany</p>	<p>P1B7-3 Contrast-based Transient Flow Vector Distribution in Arterial Stenosis based on Plane Wave Bubble Wavelet Imaging and Modified Optical Flow Method</p> <p>Diya Wang¹, Bowen Jing¹, Jinjin Wan¹, Yingjie Jia¹, Yu 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>P1B7-11 3D Ultrafast Vector Doppler Imaging for in vivo Complex Flow Quantification</p> <p>Mafalda Correia¹, Jean Provost¹, Mickaël Tanter¹, Mathieu Pernot¹ ¹Institut Langevin, ESPCI ParisTech, CNRS UMR 7587, INSERM U979, Université Paris 7, Paris, France</p>

<p>P1B5-5 Enhanced transdermal drug delivery with low frequency, low intensity (20 kHz, 100 mW/cm²) ultrasound exposure: In vivo feasibility study</p> <p>Gadi Cohen¹, Hiba Natsheh¹, Philip Lazarovici¹, Elka Touitou¹, Christopher Bawiec², Youhan Sunny², Melissa A. Lerman³, Michael Neidrauer², Leonid Zubkov², W. Andrew Berger⁴, Peter A. Lewin²</p> <p>¹Hebrew University Jerusalem, Israel, ²Drexel University, USA, ³Children's Hospital of Pennsylvania, USA, ⁴University of Scranton, USA</p>	<p>P1B6-4 Variation of longitudinal strain along the arterial wall adjacent to the asymptomatic carotid plaque</p> <p>Spyretta Golemati¹, Symeon Lehareas¹, Aimilia Gastouniotti², Konstantina Nikita², Achilles Chatzioannou¹, Despina Perrea¹</p> <p>¹Medical School, National Kapodistrian University of Athens, Athens, Greece, ²Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece</p>	<p>P1B6-12 The measurement of acoustic impedance of the cells cultured with five kinds of the fatty acid</p> <p>Kazuyo Ito¹, Kenji Yoshida², So Irie¹, Jonathan Mamou³, Hitoshi Maruyama⁴, Tadashi Yamaguchi²</p> <p>¹Graduate School of Engineering, Chiba University, Chiba, Japan, ²Center for Frontier Medical Engineering, Chiba University, Chiba, Japan, ³Lizzi Center for Biomedical Engineering, Riverside Research, New York, NY, USA, ⁴Graduate School of Medicine, Chiba University, Chiba, Japan</p>	<p>P1B7-4 Robust blood velocity estimation using point-spread-function-based beamforming and multi-step speckle tracking</p> <p>Anne E.C.M. Saris¹, Maartje M. Nillesen¹, Stein Fekkes¹, Hendrik H.G. Hansen¹, Chris L. de Korte¹</p> <p>¹Medical UltraSound Imaging Center (MUSIC), Department of Radiology and Nuclear Medicine, Radboud university medical center, Nijmegen, Netherlands</p>	<p>P1B7-12 High frame rate 3D blood speckle tracking of intracardiac flows</p> <p>Morten Wigen¹, Jakob Høgenes¹, Joris van Cauwenberge², Sten Roar Snare³, Patrick Segers², Solveig Fadnes¹, Abigail Swillens², Lasse Løvstakken¹</p> <p>¹Norwegian University of Science and Technology, Norway, ²Ghent University, Belgium, ³University of Oslo, Norway</p>
<p>P1B5-6 Echogenic liposome as a carrier of siRNA for sonoporation: an alternative microbubble for sonoporation</p> <p>Jingam Park¹, Donghee Park², Unchul Shin¹, Jungwoo Son¹, Jinho Kim¹, Ohrum Cha¹, Yunsun Lee¹, Sangwoo Lee¹, Chul-woo Kim², Jongbum Seo¹</p> <p>¹Department of Biomedical engineering, Univ. Yonsei, Wonju, Gangwon, Korea, Republic of, ²Seoul National University College of Medicine, Korea, Republic of</p>	<p>P1B6-5 Assessment of Transmural Myocardial Orientation Using Nakagami Imaging in a Phased Array Configuration</p> <p>Xue Yu¹, Wei-Ning Lee^{1,2}</p> <p>¹Electrical and Electronic Engineering, University of Hong Kong, Hong Kong, ²Medical Engineering Programme, University of Hong Kong, Hong Kong</p>	<p>P1B6-13 Correction of scatterer-diameter and acoustic-concentration estimates in saturated high-frequency ultrasound signals acquired from cancerous human lymph nodes</p> <p>Kazuki Tamura¹, Jonathan Mamou², Alain Coron³, Kenji Yoshida⁴, Tadashi Yamaguchi⁴, Ernest Feleppa²</p> <p>¹Graduate School of Engineering, Chiba University, Japan, ²Lizzi Center for Biomedical Engineering, Riverside Research, USA, ³Laboratoire UPMC Univ Paris 06, CNRS, INSERM, France, ⁴Center for Frontier Medical Engineering, Chiba University, Japan</p>	<p>P1B7-5 Two Dimensional Blood Velocity Estimation Using High Frame Rate Echocardiography with Transverse Oscillation Approach</p> <p>Hiroyuki Takahashi¹, Hideyuki Hasegawa¹</p> <p>¹Graduate School of Science and Engineering for Research, University of Toyama, Toyama-shi, Toyama, Japan</p>	<p>Session P1B8. MSD: Implementation of Novel Ultrasound Methods</p> <p>Chair: Massimo Mischi Eindhoven University of Technology</p>
<p>P1B5-7 Passive delivery of liposomes with different sizes to the mouse brain after blood brain barrier opening induced by focused ultrasound with microbubbles</p> <p>Jinxuan Guo¹, Gaoshu Chen¹, Jian Chen², Chien Ting Chin¹, Yanyan Suo³, Yuanyuan Shen¹</p> <p>¹Department of Biomedical Engineering, Shenzhen University, Shenzhen, Guang Dong, China, People's Republic of, ²School of pharmacy, Shanghai Jiaotong University, Shanghai, China, People's Republic of, ³Shenzhen Entry-Exit Inspection and Quarantine Bureau, Shenzhen, China, People's Republic of</p>	<p>P1B6-6 Experimental estimation of effective scatterer diameters from physical phantoms using autoregressive spectral analysis</p> <p>Julius Diestra¹, Roberto Lavarello¹</p> <p>¹Departamento de Ingeniería, Pontificia Universidad Católica del Perú, San Miguel, Lima, Peru</p>	<p>P1B6-14 A New Tissue-mimicking Material for Phantoms</p> <p>Kazuishi Sato¹, Tomoji Yoshida¹, Toshio Kondo¹, Masahiko Taniguchi², Kazuhiro Yasukawa²</p> <p>¹Tokushima Bunri University, Sanuki, Kagawa, Japan, ²Takiron Co., Ltd., Kobe, Japan</p>	<p>P1B7-6 High Frame Rate Vector Velocity Estimation using Plane Waves and Transverse Oscillation</p> <p>Jonas Jensen¹, Matthias Bo Stuart¹, Jørgen Arendt Jensen¹</p> <p>¹Dept. of Elect. Eng, Technical University of Denmark, Kgs. Lyngby, Denmark</p>	<p>P1B8-1 Real-time dynamic scheduling based adaptive ultrasound sequence programming for research and rapid prototyping</p> <p>Richard Tobias¹, Gary Yi Hou¹, Ashish Parikh¹</p> <p>¹Cephasonics, Santa Clara, California, USA</p>
<p>P1B5-8 The study of targeted delivery of microbubbles binding GDNF through the blood-brain barrier by MRI-guided focused ultrasound on treatment of addiction</p> <p>Feng Wang¹, Xiaojian Jia², Yu Shi³, Li Liu³, Azhen Hu¹, Yun Chen³</p> <p>¹Biomedical Research Institute, Shenzhen PKU-HKUST Medical Center, China, People's Republic of, ²Biomedical Research Institute, Shenzhen PKU-HKUST Medical Center, China, People's Republic of, ³Department of Ultrasound, Peking University Shenzhen Hospital, China, People's Republic of</p>	<p>P1B6-7 A Technique for Mapping Shear Wave Velocity and Attenuation from the Two-Dimensional Fourier Space</p> <p>Ivan Nenadic¹, Bo Qiang¹, Matthew Urban¹, James Greenleaf¹</p> <p>¹Mayo Clinic, USA</p>	<p>P1B6-15 Differentiation of normal tissue and tissue lesions using statistical properties of backscattered ultrasound in breast</p> <p>Andrzej Nowicki¹, Hanna Piotrkowska-Wroblewska¹, Katarzyna Dobruch-Sobczak², Jerzy Litniewski¹, Barbara Gambin¹, Michal Byra¹, Eleonora Kruglenko¹</p> <p>¹Ultrasound, Institute of Fundamental Technological Research, Warsaw, Poland, ²Maria Skłodowska-Curie Memorial, Cancer Center and Institute of Oncology, Warsaw, Poland</p>	<p>P1B7-7 Multi-angle imaging for robust vector Doppler and coherent compounding</p> <p>Ingvald Kinn Ekroll^{1,2}, Jørgen Avdal¹, Abigail Swillens², Hans Torp¹, Lasse Løvstakken¹</p> <p>¹Norwegian University of Science and Technology, Norway, ²St Olav's Hospital, Norway, ³Ghent University, Belgium</p>	<p>P1B8-2 Newton's Method based Self Calibration for a 3D Ultrasound Tomography System</p> <p>Wei Yap Tan¹, Till Steiner², Nicole Rüter¹</p> <p>¹Institute for Data Processing and Electronics, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany, ²Pepperl+Fuchs GmbH, Mannheim, Germany</p>

8:00 am - 5:00 pm

Poster --- Friday, October 23, 2015

4th floor

<p>P1B8-3 A Study of the Driving Circuit for Array Transducer Considering the Impedance Properties</p> <p>Hayato JIMBO¹, Kota GOTO¹, Shin YOSHIZAWA¹, Shinnichiro UMEMURA¹ ¹Tohoku university, Sendai, Miyagi, Japan</p>	<p>Session P2B1. <i>Signal Processing NDE Methods</i></p> <p><i>Chair: Erdal Oruklu</i> Illinois Institute of Technology</p>	<p>Session P2B2. <i>Wave Propagation Modeling</i></p> <p><i>Chair: Walter Arnold</i> Saarland University</p>	<p>P3B1-2 Controllable generation of acoustical vortices with sparse sources</p> <p>Haixiang Zheng¹, Qingyu Ma¹, Dong Zhang² ¹School of Physics and Technology, Nanjing Normal University, Nanjing, Jiangsu, China, People's Republic of, ²Institute of Acoustics, Nanjing University, Nanjing, Jiangsu, China, People's Republic of</p>	<p>P3B2-5 Design and characterization of 3D printed phononic crystals for sub-MHz ultrasound manipulation</p> <p>Stefano Laureti^{1,2}, Omololu Akanji¹, Lee Davis¹, Marco Ricci², Simon Leigh¹, David Hutchins¹ ¹University of Warwick, United Kingdom, ²Università degli studi di Perugia, Italy</p>
<p>P1B8-4 Method for Generating Cell Aggregates using Ultrasonic Standing Wave Trapping in a Disposable Capsule</p> <p>Yuta Kurashina¹, Kenjiro Takemura¹, Shogo Miyata¹, James Friend² ¹Mechanical Engineering, Keio University, Yokohama, Kanagawa, Japan, ²Mechanical and Aerospace Engineering, University of California-San Diego, San Diego, California, USA</p>	<p>P2B1-1 A pulse compression procedure for the measurement and characterization of Non-linear systems based on Exponential Chirp signals.</p> <p>Pietro Burrascano¹, Stefano Laureti^{1,2}, David Hutchins², Marco Ricci¹, Luca Senni¹ ¹Department of Engineering, Università degli studi di Perugia, Polo Scientifico Didattico di Terni, Italy, ²University of Warwick, United Kingdom</p>	<p>P2B2-1 Acoustic Imaging of the Circular Wedge-like Acoustic Waveguides</p> <p>Tai-Ho Yu¹ ¹National United University, Taiwan</p>	<p>P3B1-3 Transverse Manipulation of Microbubbles using Acoustic-Vortex Tweezers</p> <p>Wei Chen Lo¹, Shih Tsung Kang¹, Chih Kuang Yeh¹ ¹Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Hsinchu, Taiwan</p>	<p>P3B2-6 Anchor loss reduction of quartz resonators utilizing phononic crystals</p> <p>Yung-Yu Chen¹, Yan-Ruei Lin¹, Tsung-Tsong Wu², Shih-Yung Pao³ ¹Department of Mechanical Engineering, Tatung University, Taiwan, ²Institute of Applied Mechanics, National Taiwan University, Taiwan, ³TXC Corporation, Taiwan</p>
<p>P1B8-5 Cell manipulation by using natural vibration of a cell culture substrate</p> <p>Chikahiro Imashiro¹, Yuta Kurashina¹, Kenjiro Takemura¹, Shogo Miyata¹, Jun Komotori¹ ¹Mechanical engineering, Keio University, Yokohama, Kanagawa, Japan</p>	<p>P2B1-2 Visualization of Defects in Steel Billet using Back Propagation of Scattered Waves</p> <p>Koichi Kakuma¹, Koichi Mizutani², Naoto Wakatsuki² ¹College of Engineering Systems, School of Science and Engineering, University of Tsukuba, Tsukuba, Ibaraki, Japan, ²Faculty of Engineering, Information and Systems, University of Tsukuba, Tsukuba, Ibaraki, Japan</p>	<p>P2B2-2 Hybrid MM-MOC-based Numerical Simulation of Acoustic Wave Propagation with Non-uniform Grid and Perfectly Matched Layer Absorbing Boundaries</p> <p>Yuta Matsumura¹, Kan Okubo¹, Norio Tagawa¹, Takao Tsuchiya², Takashi Ishizuka³ ¹Tokyo Metropolitan University, Japan, ²Doshisha University, Japan, ³Shimizu Corporation, Japan</p>	<p>P3B1-4 Spatial selective trapping of microparticles using a quasi-periodic phononic crystal plate</p> <p>Chen Wang^{1,2}, Feiyan Cai², Li Fei², Long Meng², Yan Kang¹, Hairong Zheng² ¹Sino-Dutch Biomedical and Information Engineering, Northeastern University, China, People's Republic of, ²Shenzhen Institutes of Advanced Technology Chinese Academy of Sciences, China, People's Republic of</p>	<p>P3B2-7 Lowering diffraction of surface acoustic waves by phononic crystals</p> <p>Jia-Hong Sun¹, Yuan-Hai Yu¹ ¹Department of Mechanical Engineering, Chang Gung University, Tao-Yuan, Taiwan</p>
<p>P1B8-6 A Real-time Realization of the Automatic B-mode Image Optimization on a Smart Mobile Device for Point-of-Care Ultrasound Imaging</p> <p>JeeHoo Kim¹, Kwanghyun Park¹, Ilseob Song¹, Yangmo Yoo^{1,2} ¹Electronic Engineering, Sogang University, Seoul, Korea, Republic of; ²Interdisciplinary Program of Integrated Biotechnology, Sogang University, Korea, Republic of</p>	<p>P2B1-3 Feature extraction for robust impact damage classification of CFRP plates using ultrasonic signals</p> <p>Juan M. Soto¹, Antonio M. Peinado¹, Ángel M. Gómez¹, Nicolas Bochud¹ ¹Teoría de la Señal, Telemática y Comunicaciones, University of Granada, Granada, Spain</p>	<p>P2B2-3 Backward guided modes with double zero-group-velocity points in liquid-filled pipes</p> <p>Weijun lin¹, Hanyin Cui¹ ¹State Key Laboratory of Acoustics, Institute of Acoustics Chinese Academy of Sciences, Beijing, China, China, People's Republic of</p>	<p>Session P3B2. <i>Phononics II</i></p> <p><i>Chair: Anne Bernassau</i> Heriot-Watt University</p>	<p>Session P4B1. <i>Acoustic Simulation & Modeling</i></p> <p><i>Chair: Karl Wagner</i> TDK Corporation</p>

<p>P1B8-7 Speed-up of acoustic simulation techniques for 2D sparse array optimization by simulated annealing</p> <p>Emmanuel Roux^{1,2}, Alessandro Ramalli², Piero Tortoli², Christian Cachard¹, Marc Robini¹, Hervé Liebgott¹ ¹CREATIS, Université de Lyon, CNRS UMR 5220, INSERM U1044, Université Claude Bernard Lyon 1, INSA-Lyon, Villeurbanne, France, ²Ingenieria dell'informazione, Università degli studi di Firenze, Firenze, Italy</p>	<p>P2B1-4 Ultrasonic Chirplet Echo Parameter Estimation using Time-Frequency Distributions</p> <p>Pramod Govindan¹, Alireza Kasaeifard¹, Jafar Saniie¹ ¹Electrical and Computer Engineering, Illinois Institute of Technology, Chicago, Illinois, USA</p>	<p>P2B2-4 An Optimized Guided Waves' Focus Method to Eliminate the Effect of Dispersion: Theoretical and Experimental Research</p> <p>FuLi Xie¹, Shouguo Yan¹, Mingfei Cai¹, Han Dong¹, Bixing Zhang¹, Junjie Gong¹ ¹State Key Laboratory of Acoustics, Institute of Acoustics, Chinese Academy of Sciences, Beijing, China, People's Republic of</p>	<p>P3B2-1 Coupling and quality factor estimation of pillar resonators on a surface</p> <p>Vincent Laude¹, Lyes Djoumi¹, Sarah Benchabane¹ ¹FEMTO-ST / CNRS, Besancon, France</p>	<p>P4B1-1 Numerical-analytical calculation of the maximum excitation current of precision quartz resonators.</p> <p>Alaxandr Lepetaev¹, Anatoly Kosykh¹ ¹Redioelectronic, Omsk State Technical University, Omsk, Russian Federation</p>
<p>P1B8-8 Development of an Acoustic Based Sensing System for Medical Ultrasound Image Simulator</p> <p>Bo-Heng Chen¹, Kai-Sheng Heish², Chih-Chung Huang¹ ¹Department of Biomedical Engineering, National Cheng Kung University, Taiwan, ²Kaoshiung Chang Geng Memorial Hospital, Taiwan</p>	<p>P2B1-5 Sparse Deconvolution of Ultrasound NDE Echoes Accounting for Pulse Variance</p> <p>Ramazan Demirli¹, Pramod Govindan², Jafar Saniie² ¹Center for Advanced Communications, Villanova University, Villanova, Pennsylvania, USA, ²Electrical and Computer Engineering, Illinois Institute of Technology, Chicago, Illinois, USA</p>	<p>P2B2-5 Anomalous dispersion of Stoneley waves in fluid-filled boreholes</p> <p>Weijun lin¹, Hanyin Cui¹ ¹State Key Laboratory of Acoustics, Institute of Acoustics Chinese Academy of Sciences, Beijing, China, China, People's Republic of</p>	<p>P3B2-2 Focalization of surface acoustic waves through a gradient index lens</p> <p>Bernard Bonello¹, Jinfeng Zhao², Olga Boyko² ¹INSP, CNRS / Paris University, Paris, France, ²INSP, Paris University, Paris, France</p>	<p>P4B1-2 Optimization of Modified Hanma-Hunsinger Cell Geometry for the Design of High Performance SAW Filters</p> <p>Pierre Dufille¹, Pascal Ventura², Frederic Hecht³ ¹Phonon Corp, Simsbury, CT, USA, ²Laboratoire LEM3, Université de Lorraine, Metz, France, ³Laboratoire Jacques Louis Lions, Université Pierre et Marie Curie, Paris, France, Metropolitan</p>
<p>P1B8-9 A New 2D Shear Wave Imaging System for Ultrasound Elastography</p> <p>Weibao Qiu¹, Congzhi Wang¹, Yang Xiao¹, Ming Qian¹, Hairong Zheng¹ ¹Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China, People's Republic of</p>	<p>P2B1-6 Singular spectrum analysis for trend extraction in ultrasonic backscattered echoes</p> <p>Yufeng Lu¹, Jafar Saniie² ¹Electrical and Computer Engineering, Bradley University, Peoria, USA, ²Electrical and Computer Engineering, Illinois Institute of Technology, Chicago, USA</p>	<p>Session P3B1. Acoustic Tweezers and Particle Manipulation II</p> <p><i>Chair: Anne Bernassau Heriot-Watt University</i></p>	<p>P3B2-3 Molecular dynamics simulation of nonlinear waves in granular media</p> <p>Jia Yang¹, David Hutchins¹, Lolu Akanji¹, Peter Thomas¹, Lee Davis¹, Steven Freear², Sevan Harput², Nader Saffari³, Pierre Gelat³ ¹School of Engineering, The University of Warwick, Coventry, West Midlands, United Kingdom, ²The University of Leeds, United Kingdom, ³University College London, United Kingdom</p>	<p>P4B1-3 Temperature compensation of the AIN Lamb Wave Resonators utilizing the S1 mode</p> <p>Jie Zou¹, Albert P. Pisano² ¹Mechanical Engineering, University of California, Berkeley, CA, USA, ²University of California, San Diego, CA, USA</p>
<p>P1B8-10 Assessment of the performance of an ultrasonic biopsy needle</p> <p>Andrew Mathieson¹, Robert Wallace², Rebecca Cleary¹, Hamish Simpson², Margaret Lucas¹ ¹School of Engineering, University of Glasgow, United Kingdom, ²School of Clinical Sciences, University of Edinburgh, United Kingdom</p>	<p>P2B1-7 Fast total focusing method for ultrasonic imaging</p> <p>Ewen Carcreff¹, Dominique Braconnier¹, Gavin Dao² ¹The phased array company, West Chester, Ohio, USA, ²AOS NDT, Cincinnati, Ohio, USA</p>	<p>P3B1-1 Tangential Streaming Analysis on Ultrasonically Levitated Droplet through the Boundary Layer Approximation with Moving Particle Semi-implicit and Distributed Point Source Method</p> <p>Yuji Wada¹, Kohei Yuge¹, Hiroki Tanaka², Kentaro Nakamura² ¹Faculty of Science and Technology, Seikei University, Musashino, Japan, ²Precision and Intelligence Laboratory, Tokyo Institute of Technology, Yokohama, Japan</p>	<p>P3B2-4 Effect of periodic patterned ZnO sensing film on a CO SAW resonator sensor</p> <p>Tsung-Tsong Wu¹, Jia-Wei Luo¹, Lu-Chung Kuo¹ ¹Institute of Applied Mechanics, National Taiwan University, Taiwan</p>	<p>P4B1-4 Thin Plate Model for Transverse Mode Analysis of Surface Acoustic Wave Devices</p> <p>Gongbin Tang^{1,2}, Tao Han¹, Jing Chen¹, Tatsuya Omori², Ken-ya Hashimoto² ¹School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University, Shanghai, Shanghai, China, People's Republic of, ²Graduate School of Engineering, Chiba University, Chiba, Chiba, Japan</p>

8:00 am - 5:00 pm

Poster --- Friday, October 23, 2015

4th floor

<p>P4B1-5 Simulation of First Shear Horizontal Mode Plate Wave in LiNbO₃ Showing 20 km/s Phase Velocity</p> <p>Michio Kadota¹, Shuji Tanaka¹, Tetsuya Kimura² ¹Graduate School of Engineering, Tohoku University, Sendai, Miyagi, Japan, ²Telecommunication Deviston, Murata Manufacturing Co. Ltd., Yasu, Shiga, Japan</p>	<p>P5B1-1 Accurate performance evaluation of high frequency CMUT arrays using a nonlinear model</p> <p>Evren F. Arkan¹, Sarp Satir¹, F. Levent Degertekin¹ ¹G.W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA</p>	<p>P5B1-9 Performance comparison of acoustic lens materials for Capacitive Micromachined Ultrasonic Transducers: simulation study</p> <p>Jin Ho Chang^{1,2}, Sung Ho Kim¹ ¹Interdisciplinary Program of Integrated Biotechnology, Sogang University, Seoul, Korea, Republic of, ²Electronic Engineering, Sogang University, Seoul, Korea, Republic of</p>		
<p>Session P4B2. Sensors & Applications II</p> <p>Chair: Natalya Naumenko National University of Science and Technology</p>	<p>P5B1-2 Mutual Radiation Impedance for Modeling of Multi-Frequency CMUT Arrays</p> <p>Mohammad Maadi¹, Ryan Chee¹, Roger Zemp¹ ¹Electrical and Computer Engineering, University of Alberta, Edmonton, Alberta, Canada</p>	<p>P5B1-10 Comparison of Simulation Models for Electrical Characteristics of CMUT</p> <p>Markus Klemm¹, Anartz Unamuno¹ ¹Fraunhofer IPMS, Germany</p>		
<p>P4B2-1 Measurement of vibrating frequency of a cantilever using low frequency impedance-loaded SAW sensor</p> <p>Hiromitsu Hamashima¹, Jun Kondoh¹ ¹Shizuoka University, Hamamatsu-shi, Japan</p>	<p>P5B1-3 Electrical Impedance Matching of CMUT Cells</p> <p>Mohammad Maadi¹, Roger Zemp¹ ¹Electrical and Computer Engineering, University of Alberta, Edmonton, Alberta, Canada</p>	<p>Session P5B2. Applications of CMUTs</p> <p>Chair: Michael Fink Friedrich-Alexander-Universität Erlangen-Nuremberg</p>		
<p>P4B2-2 Continuous Temperature Monitoring Algorithm for SAW Sensors</p> <p>Mykhaylo Yudytskiy^{1,2}, René Fachberger¹ ¹sensideon GmbH, Wels, Austria, ²Johann Radon Institute for Computational and Applied Mathematics (RICAM), Linz, Austria</p>	<p>P5B1-4 Nonlinear Model with Lumped Parameters for Asymmetric CMUTs</p> <p>Carlos Gerardo¹, Edmond Cretu¹, Robert Rohling¹ ¹Electrical and Computer Engineering, University of British Columbia, Vancouver, British Columbia, Canada</p>	<p>P5B2-1 cMUT technology applied to galvanic isolation : theory and experiments</p> <p>Jacques Heller¹, Audren Boulmé¹, Daniel Alquier¹, Sophie Ngo¹, Marie Perroteau¹, Dominique Certon¹ ¹UMR CNRS 7347 - GREMAN, Université François Rabelais, TOURS, France</p>		

<p>P4B2-3 Sensitivity improvement of a room-temperature SAW methane sensor incorporating Cryptophane-A film</p> <p>Wen Wang¹, Haoliang Hu¹, Shitang He¹, Yong Pan², Caihong Zhang³, Chuan Dong³ ¹Chinese Academy of Sciences, Institute of Acoustics, Beijing, China, People's Republic of, ²Research Institute of Chemical Defense, China, People's Republic of, ³Shanxi University, Shanxi, China, People's Republic of</p>	<p>P5B1-5 Efficient driving conditions of CMUT arrays for conventional and harmonic imaging</p> <p>Anders Lei¹, Søren Elmin Diederichsen¹, Matthias Bo Stuart², Jørgen Arendt Jensen², Erik Vilain Thomsen¹ ¹Department of Micro- and Nanotechnology, Technical University of Denmark, Denmark,²Center for Fast Ultrasound Imaging, Department of Electrical Engineering, Technical University of Denmark, Denmark</p>	<p>P5B2-2 On-Chip Piezoelectric Polymer Ultrasonic Transceivers for Point-of-Care Testing</p> <p>Chien-Chong Hong¹, Kuan-Wen Chen¹ ¹Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan</p>		
<p>P4B2-4 Surface Acoustic Wave Accelerometer for High-G Applications</p> <p>Dmitry Lukyanov¹, Sergey Shevchenko¹, Alexander Kukaev¹, Khivrich Maria¹ ¹Laser Measurement and Navigation Systems, St.Petersburg Electrotechnical University, St. Petersburg, Russian Federation</p>	<p>P5B1-6 Optimization of the Backside Structures with Wideband Reflectivity Reduction for a CMUT</p> <p>Akifumi Sako¹, Hiroki Tanaka^{1,2}, Yasuhiro Yoshimura², Masahiro Sato¹, Tatsuya Nagata¹ ¹Hitachi Aloka Medical, Ltd., Japan,²Hitachi, Ltd., Japan</p>	<p>P5B2-3 CMUT for high sensitivity greenhouse gas sensing</p> <p>Dovydas Barauskas¹, Donatas Pelenis¹, Gvidas Sergalis¹, Gailius Vanagas¹, Marius Mikolajunas¹, Darius Virzonis¹, Jonas Baltrusaitis² ¹Panevezys Faculty of Technologies and Business, Kaunas University of Technology, Panevezys, Lithuania,²Chemical and Biomolecular Engineering, Lehigh University, Bethlehem, USA</p>		
<p>P4B2-5 SAW force sensor based on reflective delay line quasi-mirror topology</p> <p>Ivan Ancev¹, Sergei Bogoslovsky¹, Gennadiy Sapozhnikov¹, Sergei Zhgoon² ¹Joint Stock Company "NPP "Radar mms", Russian Federation,²National Research University Moscow Power Engineering Institute, Moscow, Russian Federation</p>	<p>P5B1-7 Nonlinear Lumped Modelling of Large-Scale CMUT TOBE Architectures</p> <p>Christopher Ceroci¹, Ryan Chee¹, Roger Zemp¹ ¹Electrical & Computer Engineering, University of Alberta, Edmonton, Canada</p>			
<p>Session P5B1. CMUT Modeling and Design</p> <p>Chair: Michael Fink Friedrich-Alexander-Universität Erlangen-Nuremberg</p>	<p>P5B1-8 Signal-to-Noise-Ratio Optimization For a CMUT based Medical Ultrasound Imaging System</p> <p>Reza Pakdaman Zangabad¹, Ayhan Bozkurt², Gökseven Yaraloğlu³ ¹Biomedical Engineering, Erasmus MC, Rotterdam, Netherlands, ²Electronics Engineering, Sabanci University, Istanbul, Turkey, ³Electronics Engineering, Ozyegin University, Istanbul, Turkey</p>			

