

Session PA.	STUDENT PAPER COMPETITION FINALISTS	Authors
PA-1	Low flow rate spraying using a torsional ultrasonic transducer	Shunsuke Tsuyuki ¹ , Takefumi Kanda ¹ , Koichi Suzumori ² , Shin-ichiro Kawasaki ³ , Shoki Ofuji ¹ <i>¹Okayama University, Okayama, Japan, ²Tokyo Institute of Technology, Tokyo, Japan, ³National Institute of Advanced Industrial Science and Technology, Miyagi, Japan</i>
PA-2	Fast wave velocity measurement by Brillouin scattering using induced phonon from ScAlN piezoelectric thin film	Masahiko KAWABE ¹ , Takahiko YANAGITANI ² , Hayato ICHIHASHI ¹ , Shinji TAKAYANAGI ¹ , Masashi SUZUKI ³ , Mami MATSUKAWA ¹ <i>¹Doshisha University, Kyoto, Japan, ²Waseda University, Tokyo, Japan, ³Nagoya Institute of Technology, Nagoya, Japan</i>
PA-3	High order mode polarity inverted Al-polar (0001) ScAlN/O-polar (000-1) ZnO film resonator	Takeshi Mori ¹ , Takahiko Yanagitani ² , Masashi Suzuki ¹ <i>¹Nagoya Institute of Technology, Japan, ²Waseda University, Tokyo, Japan</i>
PA-4	Multiphysics Modeling of BAW Filters	Andreas Tag ¹ , Dominik Karolewski ² , Bernhard Bader ³ , Maximilian Pitschi ³ , Robert Weigel ¹ , Amelie Hagelauer ¹ <i>¹Institute for Electronics Engineering, University of Erlangen-Nuremberg, Erlangen, Germany, ²Institut für Mikroelektronik- und Mechatronik-Systeme gemeinnützige GmbH, Germany, ³TDK Corporation, Germany</i>
PA-5	Evaluation of Acoustic Properties of CaTiO ₃ -(K,Na)NbO ₃ Film Using Microfabricated Structure	Ryosuke Kaneko ¹ , Michio Kadota ¹ , Yuji Ohashi ² , Jun-ichi Kushibiki ¹ , Shinsuke Ikeuchi ³ , Shuji Tanaka ¹ <i>¹Graduate school, Tohoku University, Sendai, Miyagi, Japan, ²Institute for Material Research, Tohoku University, Sendai, Miyagi, Japan, ³Devices Development, Murata Manufacturing Co., Ltd., Nagaokakyo, Kyoto, Japan</i>
PA-6	SAW Characteristics of AlN/SiO ₂ /3C-SiC Layered Structure with Embedded Electrodes	Qiaozhen Zhang ¹ , Tao Han ¹ , Jing Chen ¹ , Kenya Hashimoto ² <i>¹Electronic Information and Electrical Engineering, Shanghai Jiao Tong University, Shanghai, Shanghai, China, People's Republic of, ²Graduate School of Engineering, Chiba University, Japan</i>
PA-7	Dual-Mode Integrated Circuit for Imaging and HIFU With 2-D CMUT Arrays	Ji Hoon Jang ¹ , Anshuman Bhuyan ¹ , Hyo-Seon Yoon ¹ , Jung Woo Choe ¹ , Amin Nikoozadeh ¹ , Douglas Stephens ² , Butrus Khuri-Yakub ¹ <i>¹Electrical Engineering, Stanford University, Stanford, California, USA, ²Biomedical Engineering, University of California, Davis, Davis, California, USA</i>
PA-8	Capsule-based Ultrasound-mediated Targeted Gastrointestinal Drug Delivery	Fraser Stewart ¹ , Antonella Verbeni ² , Yongqiang Qiu ¹ , Benjamin Cox ¹ , Jan Vorstius ³ , Sandy Cochran ¹ <i>¹Institute for Medical Science and Technology, University of Dundee, United Kingdom, ²The BioRobotics Institute, Scuola Superiore Sant'Anna, Italy, ³School of Engineering, Mathematics</i>

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PA-9	Design of High-Efficiency, Miniaturized Ultrasonic Receivers for Powering Medical Implants with Reconfigurable Power Levels	Ting Chia Chang ¹ , Marcus Weber ¹ , Jayant Charthad ¹ , Amin Nikoozadeh ¹ , Butrus T. Khuri-Yakub ¹ , Amin Arbabian ¹ ¹ <i>Electrical Engineering, Stanford University, Stanford, CA, USA</i>
PA-10	Photoacoustic properties of plasmonic-nanoparticle coated microbubbles	Adam Dixon ¹ , Song Hu ¹ , Alexander Klibanov ¹ , John Hossack ¹ ¹ <i>Biomedical Engineering, University of Virginia, Charlottesville, Virginia, USA</i>
PA-11	Joint compressive sampling and deconvolution in ultrasound medical imaging	Zhouye Chen ¹ , Adrian Basarab ¹ , Denis Kouamé ¹ ¹ <i>IRIT, UMR CNRS 5505, University of Toulouse, France</i>
PA-12	Automatic Mouse Embryo Brain Ventricle Segmentation, Gestation Stage Estimation, and Mutant Detection from 3D 40-MHz Ultrasound Data	Jen-wei Kuo ¹ , Yao Wang ¹ , Orlando Aristizabal ^{2,3} , Daniel H. Turnbull ³ , Jeffrey A. Ketterling ² , Jonathan Mamou ² ¹ <i>Electronics and Computer Engineering, Polytechnic School of Engineering, New York University, Brooklyn, USA,</i> ² <i>F. L. Lizzi Center for Biomedical Engineering, Riverside Research, New York, USA,</i> ³ <i>Skirball Institute of Biomolecular Medicine, New York University School of Medicine, New York, USA</i>
PA-13	Robust Sound Speed Estimation for Hepatic Steatosis Assessment	Marion Imbault ¹ , Alex Faccinetto ² , Bruno-Félix Osmanski ¹ , Mathias Fink ¹ , Jean-Luc Gennisson ¹ , Valérie Vilgrain ² , Mickaël Tanter ¹ ¹ <i>Institut Langevin, ESPCI ParisTech, PSL Research University, CNRS UMR 7⁵87, INSERM U979, Paris, France,</i> ² <i>Department of Radiology, Beaujon Hospital, Paris, France</i>
PA-14	<i>In vivo</i> magnetomotive ultrasound imaging of rat lymphnodes – a pilot study	Maria Evertsson ¹ , Magnus Cinthio ¹ , Pontus Kjellman ^{2,3} , Sarah Fredriksson ² , Roger Andersson ¹ , Hanna Toftvall ² , Hans W Persson ¹ , Tomas Jansson ^{4,5} ¹ <i>Biomedical Engineering, Faculty of Engineering, LTH, Lund University, Lund, Sweden,</i> ² <i>Genovis AB, Sweden,</i> ³ <i>Medical Radiation Physics, Clinical Sciences Lund, Lund University, Lund, Sweden,</i> ^{4,5} <i>Biomedical Engineering, Clinical Sciences Lund, Lund University, Lund, Sweden,</i> ⁵ <i>Medical Services, Skåne University Hospital, Lund, Sweden</i>
PA-15	Ultrafast Pulsed Magnetomotive Ultrasound Imaging of Sentinel Lymph Nodes: Small Animal Study	Yu-Chun Huang ¹ , Jieh-Yuan Houn ¹ , Yi-Da Kang ² , San-Yuan Chen ² , Meng-Lin Li ^{1,3} ¹ <i>Dept. of Electrical Engineering, National Tsing Hua University, Hsinchu, Taiwan,</i> ² <i>Dept. of Materials Science and Engineering, National Chiao Tung University, Taiwan,</i> ³ <i>Institute of Photonics Technologies, National Tsing Hua University, Taiwan</i>

PA-16	Ultrasound flow mapping for the investigation of crystal growth	<p>Norman Thieme¹, Richard Nauber¹, Hannes Beyer¹, Hannes Radner¹, Lars Büttner¹, Paul Bönisch², Kaspars Dadzis², Lamine Sylla², Dagmar Meier³, Olf Pätzold³, Jürgen Czarske¹</p> <p>¹Laboratory for Measurement and Sensor System Techniques, Dresden University of Technology, Dresden, Germany, ²SolarWorld Innovations GmbH, Freiberg, Germany, ³Institut für Nichteisen-Metallurgie und Reinstoffe, Technische Universität Bergakademie, Freiberg, Germany</p>
PA-17	Non-contact mass measurement of droplet based on free oscillation under ultrasonic levitation.	<p>Sae Ito¹, Ryohei Nakamura¹, Hiroki Tanaka¹, Yosuke Mizuno¹, Marie Tabaru¹, Kentaro Nakamura¹</p> <p>¹Precision and Intelligence Laboratory, Tokyo Institute of Technology, Yokohama, Japan</p>
PA-18	Ultrasound Image-based Absolute Concentration Measurement Technique for Materials with Low Scatterer Concentration	<p>John H. Lee¹, Javier Jimenez², Xiang Zhang¹, Duane S. Boning¹, Brian W. Anthony¹</p> <p>¹Massachusetts Institute of Technology, Cambridge, MA, USA, ²Madrid-MIT M+Vision Consortium, Massachusetts Institute of Technology, Cambridge, MA, USA</p>