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Introduction

This SPIE proceedings volume summarizes research and development conducted by our community in the past year. The field of biomedical optoacoustic (photoacoustic) imaging continues to experience rapid growth, especially noticeable in the area of commercialization of clinical systems. The conference remains one of the largest at Photonics West. The quality of most presentations also remains outstanding, confirmed by the fact that many sessions had full-room audiences with standing room only for late arrivals.

The Best Paper Award for this conference was selected using a two-tiered process. In the first tier, directly after the 2017 conference, the organizing committee, composed of leading researchers from our community, selected three finalists (see Introduction to SPIE proceedings volume 10064). In the second tier, an award committee of independent experts formed by the sponsor of the award, Seno Medical Instruments, selected the best paper from the list of finalists by reviewing the corresponding SPIE proceedings. The $3,000 cash award and certificate of accomplishment were presented at the closing ceremony on 31 January 2018. The winner of the Best Paper Award 2017 announced at the closing of our conference this year is:

Paper 10064-21: "Photoacoustic computed tomography of small-animal whole-body dynamics". Lei Li, Liren Zhu, Cheng Ma, Junjie Yao, Washington Univ. in St. Louis (United States); Jun Xia, Univ. at Buffalo (United States); Lidai Wang, City Univ. of Hong Kong (Hong Kong, China); Konstantin I. Maslov, Ruiying Zhang, Yang Li, Wanyi Chen, Junhui Shi, Lihong V. Wang, Washington Univ. in St. Louis (United States).

This year, the organizing committee nominated seven finalists for the Best Paper Award of 2018:

Paper 10494-4: "Clinical photoacoustic computed tomography of the human breast in vivo within a single breath hold".
Author(s): Li Lin, Peng Hu, Junhui Shi, Catherine M. Appleton, Washington Univ. in St. Louis (United States); Konstantin I. Maslov, Lihong V. Wang, California Institute of Technology (United States)

Paper **10494-51: "**Linear-array based full-view high-resolution photoacoustic computed tomography of whole mouse brain functions in vivo".
Author(s): Lei Li, California Institute of Technology (United States); Pengfei Zhang, Washington Univ. in St. Louis (United States); Lihong V. Wang, California Institute of Technology (United States)

Paper **10494-60: "**Acousto-optic imaging using plane waves"
Author(s): Maïmouna Bocoum, Jean-Baptiste Laudereau, Institut Langevin (France); Alexander Grabar, Uzhgorod National Univ. (Ukraine); Caroline Venet, Jean-Luc Gennisson, Clément Dupuy, Mickaël Tanter, François Ramaz, Institut Langevin (France).

Paper **10494-63: "**Beating the photoacoustic imaging diffraction limit using flow-induced absorption fluctuation".
Author(s): Bastien Arnal, Lab. Interdisciplinaire de Physique, Univ. Grenoble Alpes (France), Ctr. National de la Recherche Scientifique (France); Thomas Chaigne, Charité Universitätsmedizin Berlin (Germany), Humboldt-Univ. zu Berlin (Germany); Sergey Vilov, Emmanuel Bossy, Lab. Interdisciplinaire de Physique, Univ. Grenoble Alpes (France), Ctr. National de la Recherche Scientifique (France); Ori Katz, The Hebrew Univ. of Jerusalem (Israel)

Paper 10494-93: "Whole-organ atlas imaged by label-free high-resolution photoacoustic microscopy assisted by a microtome".
Author(s): Terence T. W. Wong, Washington Univ. in St. Louis (United States), California Institute of Technology (United States); Ruiying Zhang, Washington Univ. in St. Louis (United States); Hsun-Chia Hsu, Washington Univ. in St Louis (United States), California Institute of Technology (United States); Konstantin I. Maslov, Junhui Shi, California Institute of Technology (United States); Ruimin Chen, Kirk Shung, Qifa Zhou, The Univ. of Southern California (United States); Lihong V. Wang, California Institute of Technology (United States)

Paper **10494-248: "**Full-view 3D imaging system for functional and anatomical screening of the breast".
Author(s): Alexander A. Oraevsky, Richard Su, Ha Nguyen, James Moore, TomoWave Laboratories, Inc. (United States); Yang Lou, Sayantan Bhadra, Luca Forte, Mark Anastasio, Washington Univ. in St. Louis (United States); Wei Yang, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)

Paper **10494-249: "**High-throughput photoacoustic imaging with a single-element ultrasonic transducer through an ergodic relay".
Author(s): Yang Li, Lei Li, Liren Zhu, Konstantin I. Maslov, Junhui Shi, Lihong V. Wang, California Institute of Technology (United States).

We would like to congratulate the Best Paper Award winner of 2017 and the finalists of 2018. We also thank all the contributors to this conference and the organizing committee for its hard work. The year of 2018 marks the 25th anniversary of pioneering papers published by SPIE in the field of Biomedical Optoacoustic Imaging. This milestone will be celebrated by a special session in the course of "Photons plus Ultrasound: Imaging and Sensing 2019."

Alexander A. Oraevsky
Lihong V. Wang