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Photons Plus Ultrasound: Imaging and Sensing 2015

Alexander A. Oraevsky
Lihong V. Wang
Editors

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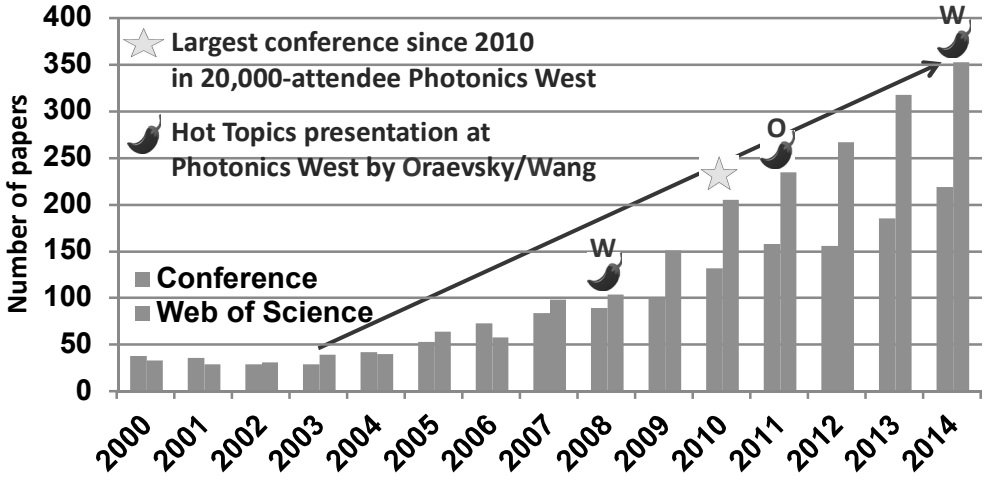
Introduction

This volume of *Proceedings of SPIE* summarizes research and development conducted by our growing community in the past year. The field of photoacoustic/optoacoustic tomography continues to experience growth as shown in the following chart. The journal papers were from the Web of Science, and the number of conference papers reflects the actual number of presentations in the conference on Photons plus Ultrasound. This chart shows the number of research papers published per year by our community has doubled every three years recently.

Since 2010, our conference has become the largest in Photonics West. Our technology has been highlighted by the two of us three times at the BiOS Hot Topics plenary sessions. However, the number of conference papers dropped this year in comparison to 2014 despite the continued growth in the number of journal papers.

One possible reason is that our technology positively has influenced other fields of science and engineering and a number of new biomedical applications have emerged. Therefore, a large number of papers on optoacoustics/photoacoustics that could have been traditionally submitted to the conference on "Photons plus Ultrasound: Imaging and Sensing" were presented at other conferences of Photonics West and other optical and ultrasonic symposia worldwide. Of course, we are delighted to see that our technology has contributed to the growth of other related technologies. Another possible reason is that travel funds have lately become scarcer. Nevertheless, our conference remains as the largest in Photonics West. A total of 108 papers, including 55 oral papers and 54 posters, were presented over the course of three days.



The conference organizing committee selected the Best Paper Award and the Best Poster Award with $2,500 for each, generously sponsored by Seno Medical Instruments (San Antonio, Texas).

The Best Paper Award went to:
Steven J. Ford, Xosé Luis Deán-Ben, Helmholtz Zentrum München GmbH (Germany); Daniel Razansky, Helmholtz Zentrum München GmbH (Germany) and Technische Univ. München (Germany). "Cardiac function and perfusion dynamics measured on a beat by beat basis in the live mouse using ultra-fast 4D optoacoustic imaging."

The Best Poster Award went to:
Joon-Mo Yang, Chiye Li, Washington Univ. in St. Louis (United States); Ruimin Chen, The Univ. of Southern California (United States); Bin Rao, Junjie Yao, Amos Danielli, Konstantin I. Maslov, Washington Univ. in St. Louis (United States); Qifa Zhou, Koping Kirk Shung, The Univ. of Southern California (USA); Lihong V. Wang, Washington Univ. in St. Louis (United States). "Label-free optical-resolution photoacoustic endomicroscopy in vivo."

We would like to congratulate the winners and thank all the contributors to this conference and the Organizing Committee for their hard work.

Alexander A. Oraevsky
Lihong V. Wang