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Karel Fliegel
Petr Páta
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Introduction

This volume contains a selection of 48 peer-reviewed papers from 87 contributions presented during the Photonics Prague 2017 conference, the eighth international conference in a series organized by the Czech and Slovak Society for Photonics (CSSF). This series started as a first national Photonics meeting in 1992, and after seven successful international conferences in Prague (1995, 1999, 2002, 2005, 2008, 2011, 2014) it celebrates its 25th year anniversary.

The conference is focused on the latest development in photonics with particular emphasis on devices and systems. This year the conference included 11 topical sessions covering various aspects of photonics.

1. Laser in Industry
2. Metrology and Sensors
3. Life Science and Biophotonics
4. Simulation of Photonic Devices
5. Diffractive Optical Devices
6. Waveguide Photonics
7. Organic Photonic Materials and Devices
8. Non-linear Materials, Devices, and Applications
9. Solar Cells, Solid State Lighting and LED, LD, OLED
10. Nanophotonics and Nanooptics
11. Education and Multimedia in Photonics

The conference attracted 92 active participants. The scientific program was comprised of 3 invited plenary talks, 34 oral presentations, and 50 poster presentations.

The Program Committee suggested three invited talks showing the emerging trends in photonics. The first one was presented by Kay Schuster from the Leibniz Institute of Photonic Technology (Germany) with the title "From Advanced Methods of Preform Fabrication to Specialty Coated Fibers – Material and Technology." The second talk was given by Pavel Zemánek from the Institute of Scientific Instruments (Czech Republic) with the title "Forces of Light: From Solar Sails to Nanoparticle Cooling." The third invited lecture entitled "Latest Advances in Biophotonics" was presented by Alžběta Marček Chorvátová from the International Laser Centre (Czech Republic).

We would like to thank all authors for their excellent contributions, which made for an outstanding conference, and members of the Program Committee for their effort in preparing the conference technical program, as well as for their detailed reviews of the submitted manuscripts. We would like to also thank the Organizing Committee for smooth local arrangements, the staff of SPIE for their support in preparing these Proceedings, and other people who made the conference happen.

We expect that the Photonics Prague conference series will continue, and we look forward to inviting scientists from all countries to attend the next conference in 2020.

Karel Fliegel
Petr Páta

Dedicated

to the Memory of Pavel Tománek

The Photonics Prague 2017 conference and its proceedings are dedicated to the memory of Pavel Tománek, keen main organizer and long-term chair of Photonics Prague conference series. Our late esteemed colleague was sadly taken from us in May 2017.

Pavel Tománek, a renowned specialist in the field of photonics, optoelectronics, and nanotechnology, was connected for more than four decades as a researcher and professor of Applied Physics with the Faculty of Electrical Engineering and Communication of the Brno University of Technology, Brno, Czech Republic. Initially, he wanted to be a top athlete, but due to a ski accident, he changed his life path and eventually became a world-class expert in the mentioned scientific fields. He was an author of hundreds of research papers and textbooks and completed long-term internships in Algeria and France, where he also lectured. He co-organized many scientific conferences around the world, from Japan to the United States. He was enthusiastically dedicated to work and education of young colleagues, especially doctoral students. He was also very active in the Czech and Slovak Society for Photonics, acting as its president for the past three years.

We have lost a highly valued member of our research community, a colleague, and friend. May we continue to be inspired by his heritage in our future work.

Petr Páta