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David L. Andrews
Jean-Michel Nunzi
Andreas Ostendorf
Editors

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- 2 Optoelectronics
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- 3 Nano-optics
Andreas Ostendorf, Ruhr-Universität Bochum (Germany)
- 4 Microscopy
Christoph Lienau, Carl von Ossietzky Universität Oldenburg (Germany)
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Martti Kauranen, Tampere University of Technology (Finland)
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Alexandre Bouhelier, Université de Bourgogne (France)
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David L. Andrews, University of East Anglia (United Kingdom)

Introduction

As the field of Nanophotonics continues to grow apace, the number of contributions to this biennial conference has accelerated to a new record high. This year's five-day conference was packed with contributed talks and posters of an extraordinarily high standard, delivered alongside invited papers by leading experts from around the globe.

To those unfamiliar with the subject, the term 'nanophotonics' might seem to suggest a rather narrow field: a working definition might be the realm of optical or electromagnetic phenomena over nanoscale dimensions - where it is more than usually appropriate to consider the light in terms of photon interactions. Such a definition rightly serves to identify this area of optics as one that goes beyond almost all of the subject served by traditional text-books, two or three decades ago. And it is of course in this very area that many of the most exciting and transformative developments are taking place. Accordingly, the range of applications now encompasses an astonishingly broad spectrum, including novel forms of imaging and microscopy, vortex light, devices for the tailored directional emission of light, and materials with optical characteristics that would, not so long ago, have been considered impossible. Here, too, are new forms of solar cell, sensors with single-molecule resolution, and optical traps affording control with nanoscale precision - even to the extent of guiding individual electrons. All of these and many more topics owe their origin to nanoscale photonics, and the range continues to grow.

I am pleased to acknowledge my debt of gratitude to all who helped deliver such a successful conference, especially my two co-chairs Andreas Ostendorf and Jean-Michel Nunzi. Together, we have been supported by an excellent Programme Committee, and several other key individuals who assisted in chairing sessions. My sincere thanks to these, and to all the authors who shared with us their latest advances. And lastly, I once again thank the dedicated and ever-professional SPIE staff for their top-rate support.

David L. Andrews
Jean-Michel Nunzi
Andreas Ostendorf