Feature issue of digital holography and 3D imaging (DH): introduction

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The OSA Topical Meeting "Digital Holography and 3D Imaging (DH)" was held in Seattle, Washington, 13–17 July 2014. Feature issues based on the DH meeting series have been released by Applied Optics (AO) since 2007. In this year (2014), Optics Express (OE) and AO jointly decided to have one such feature issue in each journal. The feature issue includes 27 papers and covers a large range of topics, reflecting the rapidly expanding techniques and applications of digital holography and 3D imaging. The DH meeting will continue in the future, as expected, and the next meeting is scheduled to be held on 24–28 May 2015, at Shanghai Institute of Optics and Fine Mechanics, Shanghai, China.

OCIS codes: (090.1995) Digital holography; (090.0090) Holography; (100.0100) Image processing; (100.6890) Three-dimensional image processing; (180.6900) Three-dimensional microscopy.
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This issue is a follow-up on the OSA Topical Meeting "Digital Holography and 3D Imaging (DH)," which was held in Seattle, Washington, 13–17 July 2014. The Topical Meeting provides a forum for science, technology, and applications of topics of three-dimensional (3D) imaging and display systems, digital holography and holographic microscopy, computer-generated holograms, holographic lithography, holographic remote sensing, and biomedical imaging. The meeting has been growing, especially in the number of contributions in applications, and aims for further recognition from other research communities. The DH meeting has been going for eight years, with growing strength, and the next meeting is scheduled to be held on 24–28 May 2015, at Shanghai Institute of Optics and Fine Mechanics, Shanghai, China.

Feature issues based on digital holography and 3D imaging have been released by Applied Optics (AO) since 2007. In this year (2014), Optics Express (OE) and AO jointly decided to have one such feature issue in each journal as a response to the growing number of new findings on optical phenomena, new developments of methods and techniques, theoretical and experimental analysis of systems, and important improvements.

As we know, AO and OE have different characters (or journal scopes). Scientific and technology innovations are the main factors for publications to either one of the journals. As for AO, we encouraged authors to give full and in-depth descriptions of the concepts, theory, mathematical models, experimental systems,

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and experimental results so that the reader can reproduce the results published in the paper. As for OE, we encourage the authors to emphasize the innovations rather than in-depth descriptions. Naturally, we also encourage the use of video multimedia files for authors to demonstrate their innovative works since such supporting material is especially effective in imaging and display fields.

There are a total of 27 papers published in the joint feature issue, 14 in AO and 13 in OE. The papers published in this AO feature issue cover a large range of topics, reflecting the rapidly expanding techniques and applications of digital holography and 3D imaging. We thank and applaud all the authors in this feature issue as well as the participants in the DH meeting for being a part of this exciting event.