

# Digital Holography and 3D Imaging: introduction to the joint feature issue in *Applied Optics* and *Journal of the Optical Society of America A*

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The OSA Topical Meeting on Digital Holography and 3D Imaging (DH) was held 20–23 May 2019 in Bordeaux, France. Feature issues based on the DH meeting series have been released by *Applied Optics* (AO) since 2007. This year, AO and the *Journal of the Optical Society of America A* (JOSA A) jointly decided to have one such feature issue in each journal. This feature issue includes 46 papers in AO and 9 in JOSA A and covers a large range of topics, reflecting the rapidly expanding techniques and applications of digital holography and 3D imaging. The upcoming DH Conference (DH 2020) will be held from 22 to 26 June in Vancouver, Canada, as part of the OSA Imaging and Applied Optics Congress. © 2019 Optical Society of America

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It has now become a tradition for every topical meeting on digital holography to be succeeded by a feature issue in *Applied Optics*. As in the case for DH 2017 and 2018, DH 2019 culminates in a joint issue between AO and the JOSA A. The topical meeting was held at the Institute of Optics Graduate School in Bordeaux, France, as a stand-alone conference. It had great success with 132 oral presentations (11 invited talks, two tutorials, two keynote addresses) and 79 posters, adding up to a grand total of 211.

The DH Topical Meeting is now recognized as the world's premier forum for science, technology, and applications of digital holography, 3D imaging, and display methods. In 2019, the meeting was organized around 22 sessions, including two poster sessions. Sessions addressed hot topics related to the areas of novel 3D imaging and display systems, computer-generated holograms, quantitative phase imaging, digital holographic microscopy, holographic tomography, holographic particle

imaging, artificial intelligence and machine learning in digital holography, biomedical applications, and holography with various light sources, including gated, coherent, incoherent, and X-ray to terahertz waves. Accordingly, this feature issue offers many excellent contributions, of which 46 are published in AO and nine in JOSA A. Six papers in AO and four in JOSA A are invited papers.

All submitted papers, including invited papers, underwent peer review. We hope these articles will present state-of-the-art technological developments that are currently underway and stimulate further novel applications of digital holography and 3D imaging. The topical editors would like to thank all contributors and reviewers, without whom this feature issue would not have been possible. Finally, we wish the very best of success in the upcoming Digital Holography and 3D Imaging Conference, which will be held 22–26 June 2019 in Vancouver, Canada, as part of the OSA Imaging and Applied Optics Congress.