Special Issue

Digital Holography: Advancements, Applications, and Challenges

Message from the Guest Editors

The reconstruction of an image in three dimensions is one of the most spectacular and best-known achievements of holography, but there are many other applications in different areas. Holographic interferometry, holographic optical elements, holographic memories, optical information processing, computer-generated holograms, digital holography and security holograms are just a small sample of the numerous scientific and technical applications based on the holographic method. At present, holography is not only limited to the visible spectrum, but holograms can also be made using waves from other regions of the electromagnetic spectrum, thus giving rise to infrared, ultraviolet, microwave or X-ray holography. Topics of interest include, but are not limited to:

- Biomedical imaging;
- 3D metrology;
- Data storage;
- Augmented reality;
- Security and authentication;
- Art and cultural preservation;
- Novel algorithms for holographic image reconstruction;
- Innovations in holographic microscopy for medical diagnosis;
- Advances in holographic data storage technology;
- Miniaturized holographic devices for consumer applications.

Guest Editors

Dr. Amalia Martínez-García
Centro de Investigaciones en Óptica A.C., León, Guanajuato, Mexico

Dr. Miguel León-Rodríguez
Departamento de Ingeniería en Robótica, Universidad Politécnica de Guanajuato, Cortazar C.P. 38496, Mexico

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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