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Practical Holography XXXII: Displays, Materials, and Applications

**Hans I. Bjelkhagen
V. Michael Bove Jr.**
Editors

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Introduction

The SPIE Conference 10558, Practical Holography XXXII: Displays, Materials, and Applications, took place at the Moscone Center in San Francisco, California, 29–31 January 2018, as part of the larger SPIE Photonics West event. It was an important international event in the field of holographic applications and recording materials. The conference provided a venue for all aspects of holography: art, display, metrology, scientific, security, storage, materials and processes, CGHs and HOEs. It also brought together participants from all over the world.

The holography conference was chaired by Hans I. Bjelkhagen, Glyndŵr University (United Kingdom) and Hansholo Consulting Ltd. (United Kingdom), and V. Michael Bove, Jr., MIT Media Laboratory (United States) and attracted about 50 participants. This year's conference (as always) featured long-time participants and new members of the Practical Holography community, sharing many novel and interesting contributions in various holographic fields during two days of oral presentations and a poster session. The oral presentations were divided into five main sessions: Applications I and II, Materials and Processes, and Digital Holography I and II.

The conference produced many quality papers. Ian Lancaster (United Kingdom) gave an invited talk, "Can we overcome display holography's brick wall?" [10558-1]; and Alejandro Madrid Sánchez, from Universidad EAFIT (Colombia) presented a paper on Denisyuk holograms recorded of pre-Hispanic gold artefacts [10558-2]. He also described a low-cost full-parallax holoprinter [10558-17]. Two papers from Italy described astronomic HOEs and VPHGs recorded on photopolymer materials [10558-3] and [10588-4]. Lena Göring, Ruhr-Universität Bochum (Germany) described digital holography applied in a reflection microscope [10558-8]. Phillipe Gentet, Kwangwoon University (Korea, Republic of) described a diorama with colour H2 analogue holograms [10558-9]. Christel Manecke, Covestro (Germany), described incoherent pre-exposure of vHOEs in Bayfol® HX photopolymer [10558-11]. William Alschuler, California Institute of the Arts (United States) described how formate can increase the sensitivity of silver halide holographic emulsions [10558-15]. An invited paper [10558-24] on the image quality of computer-generated holograms was presented by Hiroshi Yoshikawa, Nihon University, (Japan). From Massachusetts Institute of Technology (United States), Sundeep Jolly described a flat-panel holographic display based on waveguide acousto-optics [10558-21].

The SPIE Holography Technical Evening Event took place on Tuesday, 30 January at the InterContinental Hotel. It focused on new developments, applications, holography events, and demonstrations. During the Tuesday evening event, short presentations took place. For example, Ian Lancaster (United Kingdom) informed attendees about the SURYS Hologram Foundation and Art Grant. Gunnar Elgcróna, COBOLT (Sweden) informed on the latest COBOLT lasers. Andy Well, UNIK LASERS (Scotland) introduced brand new

United Kingdom lasers suitable for holography. Information about the 11th International Symposium on Display Holography (ISDH 2018) was provided. It will take place at the Universidade de Aveiro (Portugal) 25–29 June 2018.

The conference chairs would like to thank the authors and the program committee members for their contributions to the conference. We look forward to seeing you at next year's conference in San Francisco.

Hans I. Bjelkhagen
V. Michael Bove, Jr.