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Thomas D. Milster
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Introduction

This proceedings volume is a collection of papers based on the invited and contributed presentations at the Optical Data Storage (ODS) 2014 conference, which was held 18–19 August 2014, at the San Diego Convention Center, as part of the SPIE Optics + Photonics 2014.

The ODS has a history of over 40 years. The first ODS was held in 1973 as a stand-alone conference, and since 1989 it has been held annually through cosponsors SPIE, IEEE Photonics Society, and OSA. From 1993 to 2011, the ODS was held jointly with the International Symposium on Optical Memory (ISOM) every three years in Hawaii. The ODS has provided an excellent forum for exchanging information on the status, advances, and future directions in the field of optical data storage, and has contributed to the great commercial success of CD, DVD, and Blu-ray Disc families.

However, in recent years, the number of attendees has dwindled reflecting the decline of the optical data storage business. In view of this trend, after the ODS 2012, the committee decided to terminate the stand-alone conferences and to hold the ODS as part of larger society-sponsored conferences. Based on this decision, the ODS 2013 was held as part of the IEEE Photonics Conference, and ODS 2014 was held as part of the SPIE Optics + Photonics symposium, as described above.

The ODS 2014 was basically a good success. A total of 35 papers (19 invited papers, 13 contributed oral papers, and 3 contributed poster papers) were presented. There were some high-quality presentations about holographic data storage, heat-assisted magnetic recording, and emerging and elemental technologies. The meeting room, although small, was nearly full to capacity for most of the conference, which indicates continuing interest in optical data storage.

We are very happy that a total of 22 papers are contained in this proceedings volume. They represent important and interesting achievements in the current field of optical data storage. We hope that the readers find this proceedings volume stimulating and exciting, as well as helpful for their future research and development.

Finally, we would like to express our sincere gratitude to the committee members, session chairs, and all of the presenters and attendees of the ODS 2014, as well as the SPIE staff for their great contribution.

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Thomas D. Milster