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Optical Data Storage 2017: From New Materials to New Systems

**Ryuichi Katayama
Yuzuru Takashima**
Editors

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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) 2017 conference, which was held on 6 August 2017 at the San Diego Convention Center as part of the SPIE Optics + Photonics 2017.

The ODS had been held as a stand-alone conference from 1973 to 2012 and has been held as part of larger conferences since 2013. This was the fourth time for the ODS to be held in the SPIE Optics + Photonics. This time, we added the subtitle "From New Materials to New Systems" to the conference name to highlight that the optical data storage field covers a broad range of topics.

During the ODS 2017 active discussions on latest topics were observed. A total of 18 papers (10 invited papers and 8 contributed papers) were presented orally. There were high-quality presentations about systems and applications, especially on holographic data storage, nanophotonics, and emerging and elemental technologies. One thing we have to regret is that the average number of attendees for each session in this year became smaller than those in the past three years. Nonetheless, presentation and discussions during the ODS 2017 shows that there will be a demand for 10 TB-order optical data storage in the future professional archival storage market, and the effort of the related researchers to meet this demand will be strongly expected.

We are very happy that a total of 8 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.

We would like to have the ODS 2018 as part of the SPIE Optics + Photonics 2018, which will be officially announced later. To activate the ODS more, we are planning to add a new topic that is related to optics for industrial applications but not restricted to optical data storage, and to organize a special session on this topic.

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 2017 as well as the SPIE staff for their great contributions.

Ryuichi Katayama
Yuzuru Takashima

