PROCEEDINGS OF SPIE

Sensors, Systems, and Next-Generation Satellites XXII

Steven P. Neeck
Philippe Martimort
Toshiyoshi Kimura
Editors

10–12 September 2018
Berlin, Germany

Sponsored by
SPIE

Cooperating Organisations
European Optical Society
European Association of Remote Sensing Companies (Belgium)
CENSIS—Innovation Centre for Sensor and Imaging Systems (United Kingdom)
ISPRS—International Society for Photogrammetry and Remote Sensing
EARSeL—European Association of Remote Sensing Laboratories (Germany)
Remote Sensing & Photogrammetry Society (United Kingdom)

Published by
SPIE

Volume 10785

Proceedings of SPIE 0277-786X, V. 10785

Sensors, Systems, and Next-Generation Satellites XXII, edited by Steven P. Neeck, Philippe Martimort, Toshiyoshi Kimura,
Proc. of SPIE Vol. 10785, 1078501 · © 2018 SPIE · CCC code: 0277-786X/18/$18 · doi: 10.1117/12.2517170

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:
Author(s), "Title of Paper," in *Sensors, Systems, and Next-Generation Satellites XXII*, edited by Steven P. Neeck, Philippe Martimort, Toshiyoshi Kimura, Proceedings of SPIE Vol. 10785 (SPIE, Bellingham, WA, 2018) Seven-digit Article CID Number.

ISSN: 0277-786X
ISSN: 1996-756X (electronic)

ISBN: 9781510621534
ISBN: 9781510621541 (electronic)

Published by
SPIE
P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIE. DIGITAL LIBRARY
SPIEDigitalLibrary.org

Paper Numbering: *Proceedings of SPIE* follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B … 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

CALIBRATIONS IV

POSTER SESSION

Authors

Numbers in the index correspond to the last two digits of the seven-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first five digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Conference Committee

Symposium Chair

Christopher M. U. Neale, University of Nebraska-Lincoln (United States) and Daugherty Water for Food Institute (United States)

Symposium Co-chair

Karsten Schulz, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung (Germany)

Conference Chairs

Steven P. Neeck, NASA Headquarters (United States)
Philippe Martimort, European Space Research and Technology Centre (Netherlands)
Toshiyoshi Kimura, Japan Aerospace Exploration Agency (Japan)

Conference Programme Committee

Jean-Loup Bézy, European Space Research and Technology Centre (Netherlands)
Roland Meynart, European Space Research and Technology Centre (Netherlands)
Olivier Saint-Pe, Airbus Defence and Space (France)
Haruhisa Shimoda, Tokai University (Japan)
Xiaoxiong J. Xiong, NASA Goddard Space Flight Center (United States)

Session Chairs

1 US Missions I
Steven P. Neeck, NASA Headquarters (United States)

2 US Missions II
Steven P. Neeck, NASA Headquarters (United States)

3 European Missions I
Philippe Martimort, European Space Research and Technology Centre (Netherlands)