PROGRESS IN BIOMEDICAL OPTICS AND IMAGING Vol. 22 No. 42

Single Molecule Spectroscopy and Superresolution Imaging XIV

Ingo Gregor Felix Koberling Rainer Erdmann Editors

6–11 March 2021 Online Only, United States

Sponsored and Published by SPIE

Volume 11650

Proceedings of SPIE, 1605-7422, V. 11650

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

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 Single Molecule Spectroscopy and Superresolution Imaging XIV, edited by Ingo Gregor, Felix Koberling, Rainer Erdmann, Proceedings of SPIE Vol. 11650 (SPIE, Bellingham, WA, 2021) Seven-digit Article CID Number.

ISSN: 1605-7422 ISSN: 2410-9045 (electronic)

ISBN: 9781510641358 ISBN: 9781510641365 (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 Copyright © 2021, Society of Photo-Optical Instrumentation Engineers.

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$21.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code is 1605-7422/21/\$21.00.

Printed in the United States of America by Curran Associates, Inc., under license from SPIE.

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



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

BIOLOGICAL APPLICATIONS OF SM SPECTROSCOPY AND SUPERRESOLUTION IMAGING

11650 06 Impact of the intensity threshold on binary switching analysis in single molecule spectroscopy of phycobilisomes [11650-4]

NEW SINGLE MOLECULE OR SUPERRESOLUTION TECHNIQUES

11650 0D Phasor approach for Fluorescence Anisotropy [11650-15]

SINGLE MOLECULE OR PARTICLE TRACKING

- 11650 01 Single molecule tracking and spectroscopy unveils molecular details in function and interactions of membrane receptors [11650-20]
- 11650 0K Theoretical comparison of real-time single-particle tracking techniques [11650-22]

DEEP LEARNING, COMPUTATIONAL AND THEORETICAL ASPECTS OF SINGLE MOLECULE OR SUPERRESOLUTION TECHNIQUES

- 11650 0M Overcoming the fundamental limitation of frequency-domain fluorescence lifetime imaging microscopy spatial resolution [11650-5]
- 11650 0N LSPARCOM: deep unfolded super-resolution microscopy [11650-6]
- 11650 00 Deep learning-based super-resolution fluorescence microscopy on small datasets [11650-7]
- 11650 0P Three-dimensional localization precision for self-interference digital holography [11650-8]

POSTER SESSION 11650 0T Photosensitized generation of singlet oxygen in aerosol jet and on biological surfaces [11650-27]