



MAY 7<sup>TH</sup> AND 8<sup>TH</sup>, 2019

# 9TH FRAUNHOFER IMS WORKSHOP

### Workshop Fee

580,- € (Registration before April 8<sup>th</sup>, 2019)

730,- € (Registration before April 22<sup>nd</sup>, 2019)

The workshop fee includes refreshments, lunches, and the evening event on May 7<sup>th</sup>, 2019.

### Cancellations

Half of the payment will be reimbursed for cancellations received before April 26<sup>th</sup>, 2019. Later cancellations will not be reimbursed!

### Terms of payment

After reception of the registration form an invoice will be sent to the participants and the fee has to be transferred under reference of the invoice number until April 26<sup>th</sup>, 2019. Payment by credit card is not possible.

### Contact at Fraunhofer IMS:

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### Workshop Venue:

Fraunhofer inHaus-Zentrum

Forsthausweg 1

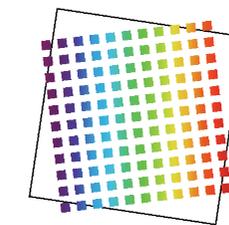
47057 Duisburg

Phone +49 203 3783-200

www.inhaus.fraunhofer.de

### Online registration:

[https://www.ims.fraunhofer.de/en/Business\\_Units\\_and\\_Core\\_Competerencies/CMOS\\_Image\\_Sensors/News/Workshop\\_CMOS.html](https://www.ims.fraunhofer.de/en/Business_Units_and_Core_Competerencies/CMOS_Image_Sensors/News/Workshop_CMOS.html)



# CMOS IMAGING

SEEING MORE THAN JUST PHOTONS

## ABOUT THE WORKSHOP

### Organization

The members of the Programme Committee are Mr. Werner Brockherde, Ms. Dr. Jennifer Ruskowski, and Ms. Anna Langnäse.

### Workshop Venue

The workshop will be held at the Fraunhofer inHaus-Zentrum in Duisburg. This center is located downtown in Duisburg within 5 minutes walk from the Fraunhofer Institute and can be easily reached either from Duisburg Central Railway Station or from Duesseldorf International Airport.

### Evening Event on May 7<sup>th</sup>, 2019

The dinner is going to take place at Landscape Park Duisburg-Nord, Emscherstraße 71, 47137 Duisburg.

A bus shuttle will be offered.

### We thank all our sponsors



## TUESDAY MAY 7<sup>TH</sup>, 2019

08:30 a.m. Registration & Refreshments  
09:45 a.m. **Welcome** / Holger Vogt, Fraunhofer IMS

### Automotive LiDAR I

10:00 a.m. **Flash LiDAR with CSPAD Arrays**  
Jennifer Ruskowski, Fraunhofer IMS  
10:40 a.m. **Components for LiDAR in Industrial and Automotive Applications**  
Winfried Reeb & Jeff Britton, Laser Components  
11:40 a.m. **Scanning Solid State LiDAR**  
Michael Kiehn, IBEO Automotive  
12:20 p.m. **LUNCH**

### Automotive LiDAR II

01:50 p.m. **LiDAR Sensors for ADAS and AD**  
Alexis Debray, Yole Développement SA  
02:20 p.m. **LiDAR Receivers for Automotive Applications**  
Marc Schillgalies, First Sensor AG  
03:00 p.m. **CMOS SPAD Array for Flash LiDAR**  
Ralf Kühnhold, ELMOS AG  
03:40 p.m. **BREAK**

### Trends in CMOS Imaging I

04:10 p.m. **Inspection with in-line computational Imaging** / Ernst Bodenstorfer, AIT  
Austrian Institute of Technology GmbH  
04:50 p.m. **Backside Illumination Technology**  
Stefan Dreiner, Fraunhofer IMS  
as of 05:45 p.m. **Bus Transfer to Workshop Dinner**

## WEDNESDAY MAY 8<sup>TH</sup>, 2019

08:30 a.m. Good Morning Coffee

### Trends in CMOS Imaging II

09:00 a.m. **Datasheets and Real Performance of CMOS Image Sensors**  
Albert Theuwissen, Harvest Imaging  
09:40 a.m. **CMOS SPAD Arrays for Fundamental Research**  
Peter Fischer, Universität Heidelberg  
10:20 a.m. **BREAK**

### Quantum Imaging

10:50 a.m. **Optical Imaging Based on Quantum Technologies**  
Nils Trautmann, Carl Zeiss AG  
11:30 a.m. **Ghost Imaging Using Entangled Photons**  
Dominik Walter, Fraunhofer IOSB  
01:10 p.m. **LUNCH**

### Image Sensors in Space

01:40 p.m. **ISS Rendezvous and Beyond – LiDAR Sensors in Space**  
Jakub Bikowski, Jena-Optronik GmbH  
02:20 p.m. **Challenges for Optical Detectors in Space**  
Dirk Viehmann, Airbus D+S  
03:00 p.m. **CMOS TDI Detector for Earth Observation**  
Stefan Gläser, Fraunhofer IMS  
as of 03:45 p.m. **Optional: Visit of Fraunhofer Wafer Fab (subject to space availability)**