

## Registration by fax

+49 (0) 6732 935 123

I will attend the symposium „Freeform Optics 2020“ as guest (340,00 € / 490,00 € plus 19% VAT)

\_\_\_\_\_

Title

\_\_\_\_\_

Last name, first name

\_\_\_\_\_

Company

\_\_\_\_\_

E-Mail

\_\_\_\_\_

Street (invoice address)

\_\_\_\_\_

ZIP Code, City (invoice address)

\_\_\_\_\_

Signature

With my signature I accept the terms and conditions of Photonics Hub GmbH (available at [www.photonics-hub.de/kontakt/agbs](http://www.photonics-hub.de/kontakt/agbs)).

Note: According to Art 6 GDPR (EU General Data Protection Regulation) we inform you about the electronic storage of your data and the processing in the automatic procedure.

**Online registration**

## Attendance Fee

Participant  
Members of German Photonic  
Innovation Networks **340,00 € pp**

Participant  
Non-members **490,00 € pp**

all prices +19%VAT

## Venue

IGZ Würzburg  
Building C/Multiphoton Optics GmbH  
Friedrich-Bergius-Ring 15  
D-97076 Würzburg  
Germany



## Photonics Hub Symposium Freeform Optics

**Design – Manufacturing – Application**



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**06th/07th October 2020  
in Würzburg, Germany**

In Kooperation mit Multiphoton Optics  
**Multiphoton  
Optics®**

## Freeform Optics

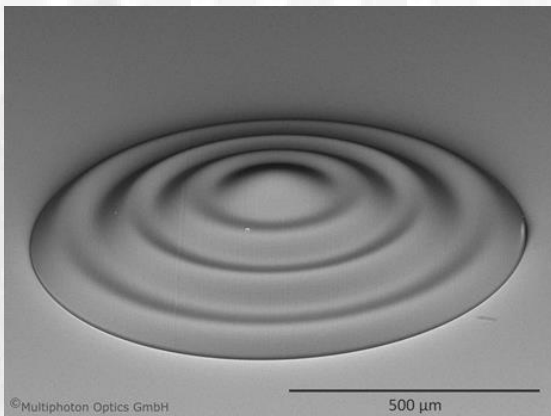
Freeform surfaces are gaining increasing importance in modern optical systems, with a high degree of design freedom with unique possibilities to combine different optical functions.

The implementation of freeform optical surfaces enhances the performance in an optical system and offers miniaturized and more compact optics.

Dependent on the application, one or more surfaces can be shaped as freeform surfaces which result in strong challenges over the entire value chain. Designs, materials, processes, and characterization methods need to be well aligned.

While fabrication methods are nowadays capable of creating complex freeform elements once the processes are validated, the metrology of freeform surfaces is still in its infancy.

The workshop brings together international design, material, and technology experts and provides an overview about the newest developments in the field to discuss them in a networking atmosphere.



## Program Tuesday, October 06th

15:00 Welcome

15:15 Company Tour Multiphoton Optics

17:00 Check in Hotel

19:00 Dinner

## Program Wednesday, October 07th

09:00 Freeform Optical Design for Sensing and Illumination Applications, Dr. Ulrich Streppel, Osram Opto Semiconductors GmbH

09:45 Wafer-based Manufacturing of Optical Devices, Edwin Wolterink, Anteryon International BV

10:10 3D-Inkjet-Printing of Optical Components, Dr.-Ing. Falk Kemper, Fraunhofer Institut für Optik und Feinmechanik IOF

10:35 Innovative Materials for the Fabrication of Microoptics, Dr. Martin Herder, micro-resist technology (MRT) GmbH

11:00 Coffee break

11:30 Manufacturing of Freeform Optics on Wafer-Level, Dr. Reinhard Völkel, SÜSS MicroOptics S.A.

11:55 Additive Manufacturing of Micro-optics: Micro-Meso-Macro, Dr. Benedikt Stender, Multiphoton Optics GmbH

12:20 Measurement of Freeform Optics from 1mm – 600mm diameter by use of a scanning point interferometer, Dr. Marc Wendel, AMETEK GmbH, GB Taylor Hobson

12:45 Lunch

13:45 Simulation and Analysis of high-NA Freeform surfaces, Prof. Dr. Frank Wyrowski, LightTrans International UG

14:10 Freeform Manufacturing for Sensoric, Dr. Johannes Koeth, Nanoplus GmbH

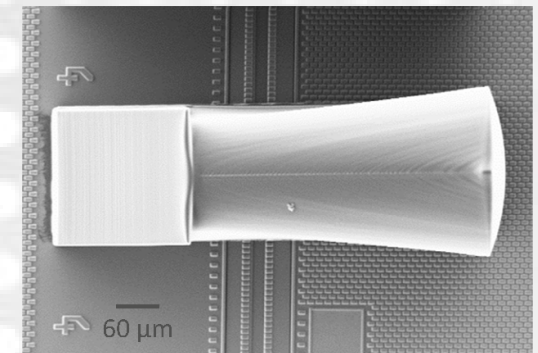
14:35 Precision and Volume - Next Generation Freeform-Optical-Systems for Imaging Applications, Lutz Reichmann, Jenoptik Optical Systems GmbH

15:00 Coffee break

15:25 Freeform Micro Optics: Current Status and future Challenges, Dr. Oscar Fernandez, CSEM

15:50 Panel Discussion

16:15 End of Event



Courtesy of ST