



Promotion of Young Scientists within the Field of Ultra-Precise Surface Engineering

11th High-Level Expert Meeting Asphere Metrology on Joint Investigations



Kompetenzzentrum
Ultrapräzise
Oberflächen-
bearbeitung e.V.

Digital Event

Key Dates

Organizational Details

16 – 18 March 2021

YSA 2021

We are offering the Young Scientist Award for the third time in 2021. Young scientists (up to age 30) within the field of ultra-precise surface engineering will present their work with a short presentation and during a poster session.

After the poster sessions it is up to you: elect the candidate of your choice! The award ceremony will take place on March 18.

Digital Space

In addition to the main meeting room, where the program takes place, this digital format offers retreats for you and your discussion partners:

1. rooms for short joint breaks and discussion groups;
2. a room for industrial exhibitions;
3. a room for the YSA poster sessions;
4. a space to discuss the direction of future HLEMs.

Programme Committee

Jean-Michel Asfour; DIOPTIC GmbH,
Andreas Beutler; Mahr GmbH
Ines Fortmeier; PTB
Thomas Franz; NTG GmbH & Co. KG
Frank Löffler; CC UPOB e.V.
Rudolf Meeß; CC UPOB e.V.
Oltmann Riemer; Leibniz-Institut (IWT)
Michael Schulz; PTB

| Measurement Schedule | Dates |
|--|--|
| Application for measurements | is opened |
| Start of measurements | since July 2019 |
| Deadline for submission of author and title | 30 October 2020 |
| Deadline for performing measurements | 15 December 2020 |
| Deadline to submit your measured data for comparison | 2 weeks after the end of your measurement period |

Deadlines for Non-Measurement Contributions

| | |
|--|-----------------|
| Abstracts | 30 October 2020 |
| Registration for digital industrial exhibition | 1 March 2021 |

The places are assigned according to the principle: first come first serve.

Participation Schedule

| | |
|-----------------------|-----------------|
| Registration | since July 2019 |
| Registration deadline | 1 March 2021 |

| Date | 16 – 18 March 2021 |
|----------------------------------|--|
| Language | English |
| Registration | by letter, fax or e-mail using the registration form available at www.upob.de . You will receive a confirmation notice. |
| Technical Check, Setup & Testing | 16 March 2021, 10:00–11:00 and 15:30–16:30 |

| Attendance fee | |
|--|------------------|
| Lecturers | € 125 (1 person) |
| Members | € 125 |
| Non-members | € 250 |
| Please pay in advance after you have received the invoice. | |

Contact

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11th High-Level Expert Meeting Asphere Metrology on Joint Investigations



16 – 18 March 2021
Online Only





Background

In the field of asphere metrology, many new advancements were achieved, new measurement procedures were developed and precision was noticeably improved. Especially the measurement of optical elements with the highest accuracy is anything but trivial. Hence, only the best manufacturers of measurement technology manage to meet this high standard.

In addition to accuracy, the comparability of the measurement results of different systems and manufacturers is very important. Therefore, the participants of our 11th HLEM will again measure selected aspheres and free-form surfaces, present the results and demonstrate the potential as well as the further development of their measurement devices during the conference.

Contributions on complementary topics, awarding the 3rd Young Scientist Award and an exhibition of the participating companies round out the programme.



**WOULD YOU LIKE TO PARTICIPATE?
THEN PLEASE REGISTER NOW!**

Programme

17 March 2021

8:45

Opening of the Meeting Room
and Technical Check

9:30

Welcome to HLEM 2021
Conference Opening,
Overview and Outlook
Frank Löffler, CC UPOB e.V., Germany

YSA 2021 –

Young Scientist Award 2021
*Introduction and Short Lectures of
Nominated Young Scientists,
Moderation by Chair, Andreas Beutler,
Mahr GmbH Göttingen, Germany,
and nominated speakers from different
institutions*

Introduction to HLEM 2021 –
Short Overview on Samples and
Background of Measurements
*Jean-Michel Asfour, DIOPTIC GmbH,
Germany*

Session

Centring of Optical Components

Centration Testing of Lenses –
An Overview
Felix Hahne, Trioptics GmbH, Germany

**11:00 Refreshment Break
Breakout Rooms – YSA Poster &
Technical Exhibition**

CGH Based Precision Test
of the Inner Centration
of a Biconvex Asphere
Frank Weidner, Dioptic GmbH, Germany

Centration Measurements
by Trioptics
Felix Hahne, Trioptics GmbH, Germany

A new Approach to Shape
and Centration Measurement
on Aspheres with
New V-SPOT Technology
*Engelbert Hofbauer and Ronald Kometer,
Hofbauer-Optik Mess- und Prüftechnik,
Germany*

**13:00 Lunch Break
Breakout Rooms – YSA Poster &
Technical Exhibition**

Session

Additional Topics

Project ‘Free-Form Measurement’:
Description of Standardized
Measurement Procedures
for Asphere Testing
Using Pointwise
Measurement Techniques
*Hanno Dierke, Technical University
Braunschweig, Germany*

Ion Beam Finishing of Optical
Aluminium Surfaces
*Thomas Arnold, Leibniz Institut für Ober-
flächenmodifizierung – IOM, Germany*

Asphere Metrology in EOSG
*Janet Lim, Edmund Optics Singapore,
Singapore*

Absolute Interferometry for
Asphere Metrology
Jan Kredba, TOPTEC, Czech Republic

**15:35 Refreshment Break
Breakout Rooms – YSA Poster &
Technical Exhibition**

Characterization of Transmissive
Segmented Freeform Optics using
Experimental Ray Tracing
Tobias Binkele, Hochschule Bremen

Retrace Error Compensation in
Absolute Interferometric Testing
Marek Stašik, TOPTEC, Czech Republic

17:30 Summary and Closing

Programme Next Day

9:00

Opening of the Meeting Room
and Technical Check

9:30

Opening of Second Day

Session

UP-Manufacturing Processes

UP Manufacturing of Challenging
Optical Functional Surfaces

*Kurt Haskic, LT Ultra-Precision
Technology GmbH, Germany*

After each lecture is the opportunity for a short discussion. Please visit www.upob.de, you will receive detailed information about each session as well as last minute information relating this event.

Programme

18 March 2021

NMF600 S Measurement
Performance on UPOB Samples
and Other Challenging Optics
*Rens Henselmans, Dutch United
Instruments, The Netherlands*

**13:15 Lunch Break
Breakout Rooms – YSA Poster &
Technical Exhibition**

HLEM 2021 –
Measurements at ITO
*Christof Pruss, University Stuttgart,
Institut für Technische Optik – ITO,
Germany*

Comparison Requirements
and Current Results
*Ines Fortmeier, Physikalisch-Technische
Bundesanstalt, Germany*

Discussion on Comparison
*Moderation by Oltmann Riemer;
Leibniz-Institut für Werkstofforientierte
Technologien – IWT, Germany*

YSA 2021 – **Ceremony**
*Moderation by Oltmann Riemer,
Leibniz-Institut für Werkstofforientierte
Technologien – IWT, Germany*

16:00 End of Event

