ASPHERE METROLOGY
Young Scientist Award
2019
FACING THE FUTURE

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

YSA 2019

We are offering the Young Scientist Award for the second time in 2019. Young scientists (up to age 30) within the field of ultra-precise surface engineering will present their work in the plenum with a 5-minute slide presentation and during a poster session.

Vote Your Young Scientist 2019!

Who was the best? After the poster sessions it is up to you: elect the candidate of your choice!

The award ceremony will take place during this year's HLEM.

Programme Committee

Jean-Michel Asfour; Dioptic GmbH
Andreas Beutler; Mahr GmbH
Thomas Franz; NTG GmbH & Co. KG
Frank Löffler; CC UPOB e.V.
Rudolf Meeß; CC UPOB e.V.
Oltmann Riemer; Leibniz IWT
Michael Schulz; PTB

10th High-Level Expert Meeting Asphere Metrology on Joint Investigations

Key Dates

Measurement Schedule

- Start of measurements:
  31 April 2018
- Deadline for performing measurements:
  15 December 2018

Industrial Exhibition

- Registration for Industrial Exhibition:
  extended to 15 February 2019

Participation Schedule

- Registration Start:
  Autumn 2018
- Registration Deadline:
  5 March 2019

Asphere Metrology

Kompetenzzentrum
Ultrapräzise
Oberflächen-
bearbeitung e.V.

Organizational Details

Date: 19 – 20 March 2019

Language: English

Registration: Please register by letter, fax or e-mail using the registration form available at www.upob.de. You will receive a confirmation notice.

Attendance Fee

Lecturers:	€ 150 (1 person)
Members:	€ 150
Non-members:	€ 525

Please pay in advance after you have received the invoice.

Accommodation: For more information, please visit www.upob.de/ Veranstaltungen.

Get2gether: 18 March 2019

Conference Dinner: 19 March 2019
Further information can be found on our website.

Conference Location: For more information, please visit www.upob.de/ Veranstaltungen.

Contact

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19 – 20 March 2019

10th High-Level Expert Meeting Asphere Metrology on Joint Investigations

Asphere Metrology

19 – 20 March 2019
at Physikalisch-Technische Bundesanstalt
Germany

Kompetenzzentrum
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10th High-Level Expert Meeting Asphere Metrology on Joint Investigations

Background

In order to manufacture ultra-precise and high-tech optical components and to be capable of further miniaturization, reliable and extremely precise measurement technology is required. Particularly 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 have measured selected aspheres and free-form surfaces and will present the results as well as the potential of their measurement devices during the conference.

The comparison of the results from all participants, contributions on complementary topics, awarding the 2nd Young Scientist Award and an exhibition of the participating companies round out the programme.

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

Programme 1st Day, 19 March 2019

9:30
Welcome to HLEM 2019
Conference Opening,
Overview and Outlook
Frank Löffler; CC UPOB e.V., Germany

YSA 2019
Young Scientist Award 2019
Introduction and Short Lectures of Nominated Young Scientists; Moderation by Oltmann Riemer; Leibniz-Institut für Werkstofforientierte Technologien – IWT, Germany

Introduction to HLEM 2019
Short Overview on Samples and Background of Measurements
Jean-Michel Asfour; DIOPTIC GmbH, Germany; and David Schäfer; NTG GmbH Co. KG, Germany

Clamping System for Optical Components for Adaptation in Optics Production
Sebastian Sitzberger; Technische Hochschule Deggendorf, Germany

Coffee Break & Technical Exhibition & YSA Poster Session

Absolute Hartmann Type Wavefront Metrology
Jean-Michel Asfour; DIOPTIC GmbH, Germany

Measuring Aspherical Focusing Mirrors for Application in the VUV/XUV-and Hard-X-ray Range – a Comparison
Frank Siewert; Helmholtz Zentrum Berlin, Germany

Fast and Reliable In-Situ Measurement of Large and Complex Surfaces Using a Novel Deflectometric Device
Ronald Kometer; Hofbauer-Optik, Mess- und Prüftechnik, Germany

Lunch & Coffee Break & Technical Exhibition & YSA Poster Session

NPMM200 – An Open Research Facility for Sensor Calibration on Nanometer Level
Christof Pruss; ITO – University Stuttgart, Germany

Round Robin Test by UA3P
Tomofumi Morishita; Panasonic Production Engineering Co., Ltd, Japan

Asphere and Free-Form Measurement Comparison in IOM
Thomas Arnold; Leibniz-Institut für Oberflächenmodifizierung e.V. – IOM, Germany

Potential of Free-Form Measurements with Different Types of Instruments
Andreas Beutler; Mahr GmbH Göttingen, Germany

A New Approach to Surface Shape and Centering Measurement on Aspheres with the New V-SPOT Technology on Sample #3
Engelbert Hofbauer; Hofbauer-Optik, Mess- und Prüftechnik, Germany

Coffee Break & Technical Exhibition & YSA Poster Session

CGH-Based Interferometer Measurements of Round Robin Asphere #3
Frank Weidner; DIOPTIC GmbH, Germany

Non-Contact 3D Form Measurement of Aspheres and Free-Forms Based on a Scanning Point Interferometer
Marc Wendel; AMETEK GmbH – Business Division Taylor Hobson / Luphos, Germany

Transforming NANOMEFOS into NMF600S: High Accuracy, Speed and Point Density on Large Wild Free-Forms
Rens Henselmans; Dutch United Instruments, The Netherlands

17:55
Summary und Closing of First Day

19:00
Conference Dinner

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 2nd Day, 20 March 2019

9:30
Opening of Second Day
Andreas Beutler; Mahr GmbH Göttingen, Germany

Deflectometry on Complex Surfaces with Compensation of Display Shape Deviations
Jonas Bartsch; BIAS – Bremer Institut für angewandte Strahltechnik GmbH, Germany

HLEM Round Robin Measurements at Optimax Systems
Michael Gregory; OPTIMAX, United States

Asphere and Free-Form Fabrication and Testing at ZYGO
Thomas Dresel; Zygo Corporation, United States

Coffee Break & Technical Exhibition & YSA Poster Session

Advanced Measurement of Free-Form Surfaces Using Experimental Ray Tracing
Tobias Binkele; Hochschule Bremen – City University of Applied Sciences, Germany

Intercomparison of Measurement Results
Katharina Janzen; Physikalisch-Technische Bundesanstalt, Germany

YSA 2019
Young Scientist Award 2019 Ceremony
Moderation by Andreas Beutler; Mahr GmbH Göttingen, Germany

Conference Closing and Outlook
Andreas Beutler; Mahr GmbH Göttingen, Germany

13:15
Lunch & Coffee
End of Event and Departure

#3 Standard Asphere
– new "with marker" –
HLEM 2018/19 Sample #3
Made possible by asphericon GmbH, Germany;
Marker by NTG GmbH, Germany

#7 Wild Free-Form
HLEM 2018/19 Sample #7
Made possible by Leibniz IOM, Germany

#5 Precision Cylinder
HLEM 2018/19 Sample #5
Made possible by Berliner Glas, Germany

HLEM Lenses

#6 Convex Toroid
– new "with marker" –
HLEM 2018/19 Sample #6
Made possible by PTB, Germany; Marker by NTG GmbH, Germany