

HLEM 2025 – Detailed Programme

V2

Monday, March 24, 2025

- 15:00** **Laboratory Tour I**
Topic: Surface Metrology in PTB
 Visit of selected PTB Laboratories - Three different stops are planned on this tour.
 Registration required as only a limited number of participants is possible!
 Registration is only possible before the event (on Registration Form).
- 16:30** **End of Laboratory Tour I**
- 16:30** **Set Up of Industrial Exhibition** in PTB Seminar Center ([Details ONLINE](#))
- 18:30** **End of Set Up**
- 19:00** **Get Together in Restaurant DISTRICT** in Braunschweig ([Details ONLINE](#))
- 22:00** **End of Evening Event**

Tuesday, March 25, 2025

Session 1 – Additional Topics

Chair: Jean-Michel Asfour, DIOPTIC GmbH, Germany

- 8:30** **Welcome Coffee and Industrial Exhibition**
- 9:30** Welcome and Introduction to HLEM 2025
Harald Bosse, CC UPOB e.V., Germany
- 9:50** Sphere Metrology: An Overview of the Interferometric Measurement of Silicon Spheres
Eva Kuhn, Physikalisch-Technische Bundesanstalt, Braunschweig, Germany
- 10:15** Active Control of Refractive Index of Air for Precision Optical Systems
*Ingo Ortlepp, Institute for Process Measurement and Sensor Technology
 Technische Universität Ilmenau, Germany*
- 10:40** Measurement of Aspherical and Free-Form Surfaces using Ultrahigh Accurate 3-D
 Profilometer (UA3P)
Kentaro Uemura, Panasonic Production Engineering Co., Ltd., Japan
- 11:05** **Coffee Break, Industrial Exhibition and YSA-Posters**
- 11:50** Simultaneous Measurement of Form and Alignment with Interferometry and Computer
 Generated Holograms
Jim Burge, President, Arizona Optical Metrology, LLC, USA
- 12:15** Concept for Improving the Form Measurement Results of Aspheres and Freeform
 Surfaces in a Tilted-Wave Interferometer
Gregor Scholz, Physikalisch-Technische Bundesanstalt, Braunschweig, Germany

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Session 2 – YSA - Young Scientist Award 2025

Chair: Jean-Michel Asfour, DIOPTIC GmbH, Germany

- 12:40** Young Scientist Award 2025 - Introduction
Session Chair, CC UPOB e.V., Germany
- 12:50** Off-Axis Fast-Tool-Servo Diamond Turning of Customized Intraocular Lenses from Hydrophobic Acrylic Polymer
Wei Wang, Leibniz-Institut für Werkstofforientierte Technologien – IWT, Bremen, Germany
- 13:05** Diameter and Topography Calibration of Reference Spheres Using Double-Ended Interferometry
Tillman Neupert-Wentz, Physikalisch-Technische Bundesanstalt, Braunschweig, Germany
- 13:20** Metrology of Micro-3D-Printed Polymer Structures – Surface Optimization for Steep Slope Detection
Stephanie Geißler, Institut für Technische Optik, University Stuttgart, Germany
- 13:35** **Lunch, Coffee Break, Industrial Exhibition and YSA-Posters**

Session 3 – Measurements I

Chair: Oltmann Riemer, Leibniz IWT, Bremen, Germany

- 14:30** Introduction to the Beginnings of Asphere Measurement Technology and Presentation of the HLEM 2025 Round Robin Samples
Andreas Beutler, Mahr GmbH, Germany
- 15:00** Combined Non-Contact Form and Centration Measurement of Precision Optical Elements
Marc Wendel, Ametek GmbH, BU Taylor Hobson, Germany
- 15:30** A Multi-Sensor Optical Coordinate Measurement Machine for Measuring Freeform Optical Surface Form and External Reference Features
Mees Vanderbroeck, Dutch United Instruments B.V., The Netherlands
- 16:00** **Group Photo with all Participants**
- 16:05** **Coffee Break, Industrial Exhibition and YSA-Posters**
- 16:30** Mid-Spatial Frequency Errors in Optical Surfaces
Donald A. Pearson II, Äpre Instruments, LLC, USA
- 16:55** Measurement of Aspheric Lenses by V SPOT Technology
Ronald Kometer, Hofbauer Optik, Germany
- 17:20** Summary of the 1st Day and Closing Remarks
Session Chair, CC UPOB e.V., Germany
- 17:30** **End of Presentations**
- 19:00** **Conference Dinner in Restaurant GASTWERK Braunschweig** ([Details ONLINE](#))
- 22:00** **End of Evening Event**

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Wednesday, March 26, 2025

Session 4 – Measurements II

Chair: Christof Pruß, Institut für Technische Optik, University Stuttgart, Germany

- 9:00** **Welcome Coffee and Industrial Exhibition**
- 9:30** Welcome and Short Overview
Session Chair, CC UPOB e.V., Germany
- 9:35** Round Robin Measurements with Zygo Asphere+ Metrology System
Torsten Glaschke, Ametek Germany GmbH, Business Unit Zygo, Germany
- 10:00** Why White Light Interferometry for Optics Applications?
Joe Armstrong, Polytec GmbH, Germany
- 10:30** **Coffee Break, Industrial Exhibition and YSA-Posters + YSA Voting**
- 11:15** Round Robin Measurements for HLEM 2025
*Michael Wagner,
Technologiecampus Teisnach Optik Technische Hochschule Deggendorf, Germany*
- 11:35** Round Robin Comparison Results of HLEM 2025
Ines Fortmeier, Physikalisch-Technische Bundesanstalt, Braunschweig, Germany
- 12:20** Presentation and Discussion of Possible Future HLEM Measurement Objects
Harald Bosse and Other Speakers, CC UPOB e.V., Germany
- 12:40** Young Scientist Award 2025 - Ceremony
Jean-Michel Asfour, DIOPTIC GmbH, Germany
- 13:00** Conference Closing and Outlook
Harald Bosse, CC UPOB e.V., Germany
- 13:15** **End of HLEM 2025**
- 13:15** **Light Lunch and Coffee to Go**
- 13:45** **Laboratory Tour II**
Topic: National Metrology Institute PTB - Insights Into the Legal Metrology Tasks
Visit of selected PTB Laboratories – Three different stops are planned on this tour.
Registration required as only a limited number of participants is possible!
Registration is Possible at the Registration Desk.
- 15:10** **End of Laboratory Tour II**
- 15:15** **Departure**