

# HLEM 2025 – Detailed Programme

V3

## Monday, March 24, 2025

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- 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

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### 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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## Tuesday, March 25, 2025

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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: Christof Pruß, Institut für Technische Optik, University Stuttgart, 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**

# HLEM 2025 – Detailed Programme

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## Wednesday, March 26, 2025

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### Session 4 – Measurements II

Chair: Oltmann Riemer, Leibniz IWT, Bremen, 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**