



Kompetenzzentrum
 Ultrapräzise
 Oberflächen-
 bearbeitung e.V.

Workshop 2024 Lenses



Programme Committee

Jean-Michel Asfour; Dioptic GmbH,
 Andreas Beutler; Mahr GmbH
 Harald Bosse; CC UPOB e.V.
 Ines Fortmeier; PTB
 Thomas Franz; NTG GmbH & Co. KG
 Rudolf Meeß; CC UPOB e.V.
 Oltmann Riemer; Leibniz-Institut IWT

Key Dates

Measurement Schedule	Dates
Application for measurements	Open for next meeting in 2025
Start of measurements	1 st June 2023
Deadline for submission of author and title	1 st December 2023
Deadline for performing measurements	1 st February 2024
Deadline to submit your measured data for comparison	2 weeks after the end of your measurement period
Deadlines for Non-Measurement Contributions	
Abstracts	15 th November 2023
Registration for Industrial Exhibition	10 th March 2024
Exhibition stands are assigned according to the principle: first come first serve.	
Participation Schedule	
Registration start	Spring 2024
Registration deadline	1 st March 2024

Organizational Details

Date	12 th - 13 th March 2024
Language	English
Registration	By letter, fax or e-mail using the registration form available at www.upob.de . You will receive a confirmation.
Accommodation	www.upob.de/Veranstaltungen
Attendance fee	
Lecturers	€ 250 (1 st person)
Members	€ 250
W3+FAIR Exhibitors	€ 500
Wetzlar Network	€ 500
Non-members	€ 650
Please pay in advance after you have received the invoice.	

Contact

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12th Workshop 2024 Asphere Metrology

microlenses
 metrology
comparison
 interferometry measurements
 lenses polishing
 subsurface damage alignment
asphere metrology
 optical systems precision optics
centering samples
 CGH
 inner centration **assembly**
 free-form
 development
 large mirrors
 space optics

12th - 13th March 2024
 Buderus Arena, Wetzlar



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12th Workshop Asphere Metrology



Background

Our series of High-Level Expert Meetings (HLEM) and Workshops has cultivated excellent exchanges between experts in aspheric metrology for more than a decade. We have always been very proud to welcome academia and leading manufacturers of measurement devices as driving forces in all our events. They have shared progress on a high scientific level. Asphere metrology has become more comparable and precise with all their input. In addition, the metrology user has been able to learn about various measurement systems and their potential and thus has benefited from our series of events too.

We will continue to meet this high standard with our next Workshop in 2024. The very important round-robin measurements will place in the run-up to the event with 4 lenses. In addition, as accompanying topics are planned this time:

- Measurement of small optics, e.g. for endoscopes and mobile phones,
- Inner centration of aspheres,
- Measurement of unmounted aspheres,
- Developments in measuring techniques for aspherical, free-form and cylindrical lenses.
- Assembly of Optical Systems
- Free-Form and Space Optics

Your contributions are very welcome!

“Our” popular exhibition area of participating companies will round off the program.

Would you like to...

- participate in the measurements?
- give a lecture on the planned topics?
- present your institution at the company exhibition?
- get one of the awards?

Please register and feel free to contact us!

Programme

March 12th 2024

12:00 Welcome to Workshop Asphere Metrology 2024 – Opening, Overview and Outlook
Harald Bosse, CC UPOB e. V., Germany

Session Assembly of Optical Systems

Chair: Jean-Michel Asfour, DIOPTIC GmbH, Germany

Keynote:
Effective Optical System Assembly by Ultra-Precise Manufactured References
Andreas Gebhardt, Fraunhofer IOF, Germany

Centration Testing of Aspheres
Andreas Kerkmann, TRIOPTICS GmbH, Germany

Lunch, Coffee Break and Technical Exhibition

Centering Turning of Mounted Optics and Lasers
Christian Wenzel, INNOLITE GmbH, Germany

Why you Won't get a Perfect Asphere Considering Inner Centration and Polishing Errors
Engelbert Hofbauer, Hofbauer Optik Mess-&Prüftechnik, Germany

Session Measurements on Current HLEM Samples

Chair: Andreas Beutler, Mahr GmbH, Germany

Non-Contact 3D Form Measurement of Precision Optics
Nina Hennemann, Taylor Hobson, Germany

Measurement of Aspheric Lenses by VSPOT Technology
Ronald Kometer, Hofbauer Optik Mess-&Prüftechnik, Germany

Coffee Break and Technical Exhibition

Applications with White-Light-Interferometry for the Characterization of Optical Surfaces
Özgür Tan, Polytec GmbH, Germany

Measurement Comparisons within the Framework of CC UPOB e. V.
Ines Fortmeier, Physikalisch-Technische Bundesanstalt, Germany

Discussion on Comparison and Summary
Session Chair

17:45 Closing of First Day
Session Chair

19:00 Conference Dinner in Local Restaurant in Wetzlar
Please find details on www.upob.de

Programme

March 13th 2024

Session Free-Form and Space Optics

Chair: Oltmann Riemer, Leibniz-Institut für Werkstofforientierte Technologien – IWT, Germany

8:45 Welcome Coffee and Technical Exhibition

9:30 Opening of Second Day
Session Chair

Keynote:
Freeform Optics: Technological Progress and Application Development
Fengzhou Fang, CIRP President, Tianjin University and University College Dublin; PRC and Ireland

Testing Large Cassegrain Secondary Mirrors using Diffractive Null Lenses
Paul Rees, Glyndwr Innovations Ltd, United Kingdom

Application of the Hexagon Multiline System for Form Measurement and Alignment of Large Mirrors
Heinrich Schwenke, Hexagon AICON ETALON GmbH, Germany

Coffee Break and Technical Exhibition

Entanglement of Power and Spherical Aberration in the Metrology of the PLATO Aspherical Lenses
Massimiliano Rossi, Media Lario Srl, Italy

Precision Measurements using Computer Generated Holograms in the Manufacturing and Alignment of Large Lens Systems
Frank Grupp, Max-Planck-Institut für extraterrestrische Physik (MPE) / Grupp-Astro, Germany

Evaluation of Microlens Arrays using UA3P
Reinhard Windemuth, Panasonic Connect Europe GmbH, Germany

Subsurface Damage in Diamond Machined Advanced Material
Oltmann Riemer and Kai Rickens, Leibniz-Institut für Werkstofforientierte Technologien – IWT, Germany

Summary and Final Discussion
Session Chair

Conference Closing and Outlook
Harald Bosse, CC UPOB e. V., Germany

13:50 End of Workshop and Visit of the W3+FAIR Light Lunch

17:30 Good Bye W3+ FAIR-Apero in Foyer of Buderus Arena in Wetzlar
Please find Details on www.upob.de