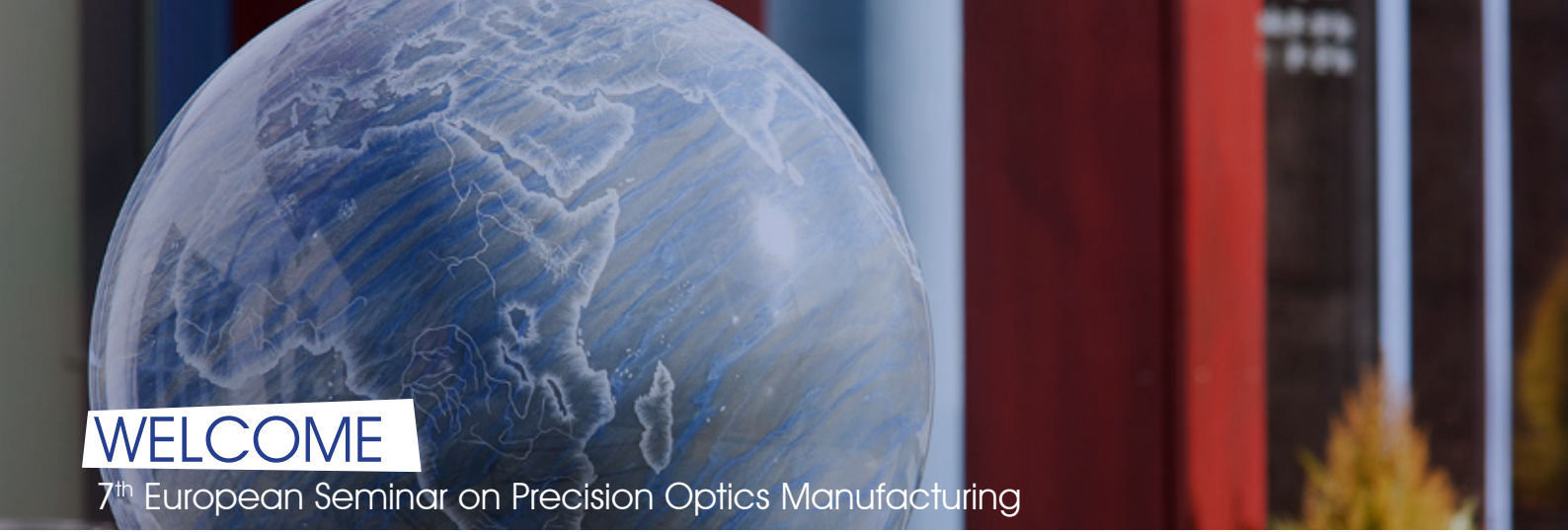


INVITATION: MARCH 31ST - APRIL 01ST

7th EUROPEAN SEMINAR ON PRECISION OPTICS MANUFACTURING

SPIE.





WELCOME

7th European Seminar on Precision Optics Manufacturing



EUROPEAN UNION
Investing in our Future
European Regional
Development Fund

7th European Seminar on Precision Optics Manufacturing, March 31st – April 1st 2020
Deggendorf Institute of Technology
Technology Campus Teisnach Optics, Germany

Main topics

- **Manufacturing and measurement** of optics from sub millimeter to large and giant dimensions and optical systems:
Processes for grinding, polishing, centering, assembly, handling, surface modification, cleaning and coating of optics. Standards in optics manufacturing. Design of optics, error budgeting, cost-planning...
- **Advanced and next generation (future) technologies** in high precision manufacturing:
Ultraprecision machining, kinetic abrasive polishing, additive manufacturing, molding, new and special materials, next generation of giant optics manufacturing and testing...
- **Smart manufacturing, internet and internet of things** in the production of optics:
Block chain and distributed-ledger-technology, Data, expert systems, optical designs and process parameters with regard to their integrity and security Process stability, data mining, handling and analysis, control of environment and media...

Conference language:
English

We are looking forward to meeting you at the 7th European Seminar on Precision Optics Manufacturing.

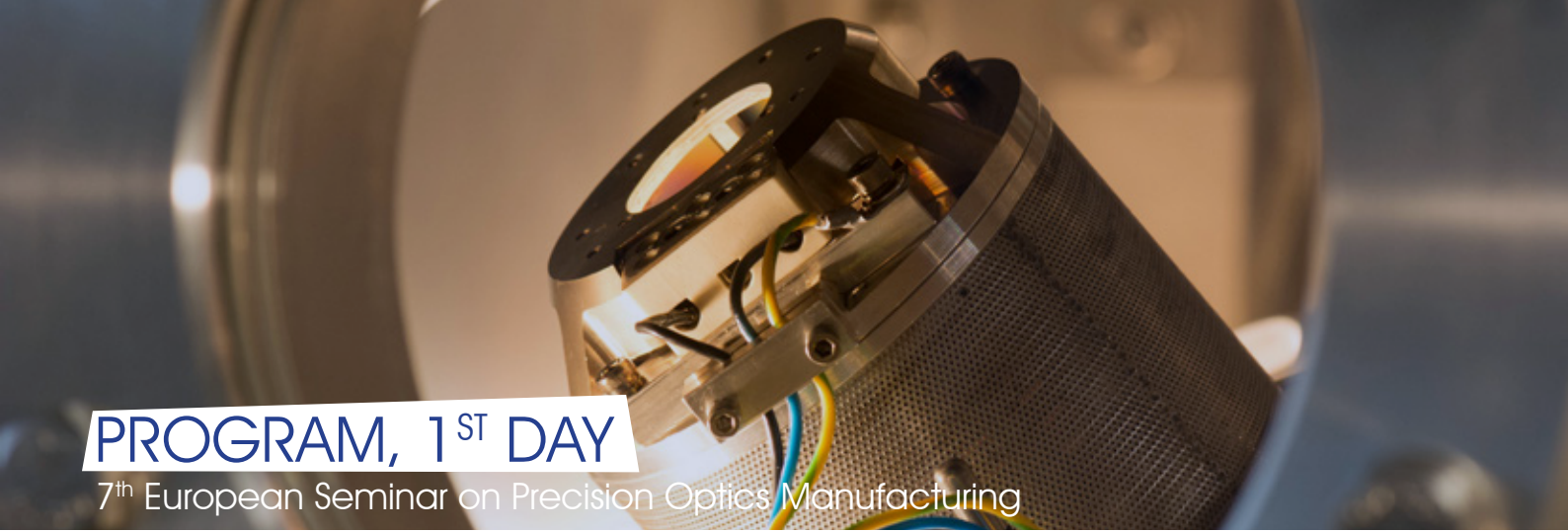
Yours sincerely,

A blue ink signature of Prof. Dr. Peter Sperber, written in a cursive style.

Prof. Dr. Peter Sperber
President of Deggendorf
Institute of Technology

A blue ink signature of Prof. Dr. Rolf Rascher, written in a cursive style.

Prof. Dr. Rolf Rascher
Head of Technology
Campus Teisnach



PROGRAM, 1ST DAY

7th European Seminar on Precision Optics Manufacturing

Chair: Prof. Dr. Rolf Rascher, THD
Dr. Oliver Föhnle, Fisba AG, CH

Committee: Dr. Oliver Föhnle, Fisba AG, CH
Prof. Dr. Gerald Fütterer, THD
Prof. Dr. Rolf Rascher, THD
Dr. Christian Vogt, THD
Prof. Dr. Christine Wünsche, THD

1st DAY, TUESDAY, March 31st 2020

9:30 CHECK-IN
10:30 WELCOME
11:00 SESSION 1 - Advanced Processes

11:00 - 11:20
ULTRASONIC - benefits of vibration-assisted machining of materials for precision optics
Jens Ketelaer, Sauer GmbH, D

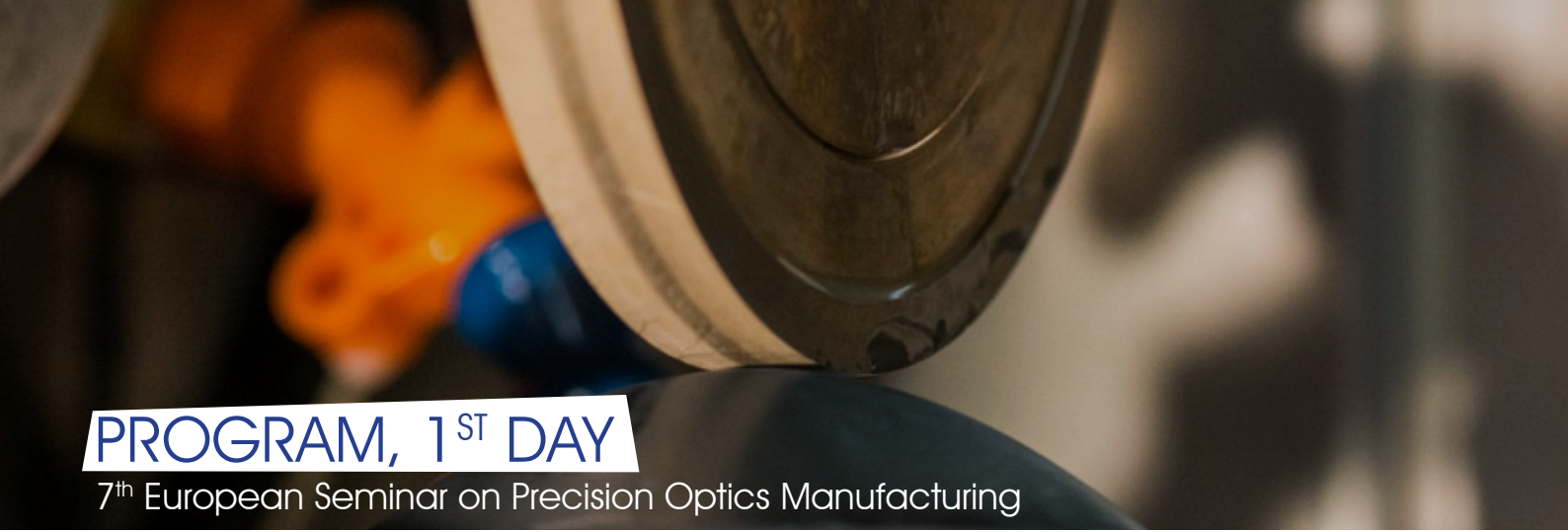
11:20 - 11:40
Cutting high-performance materials with ultrasonically modulated cutting speed
Armin Reif, Deggendorf Institute of Technology - IPH, D

11:40 - 12:00
Micro lens arrays made by CO₂-laser radiation
Susanne Kasch, Günter Köhler Institute for Joining Technology and Materials Testing (ifw Jena), D

12:00 - 12:20
Manufacturing of optical elements by non-contact laser processing
Simon Schwarz, University of Applied Sciences Aschaffenburg, D

12:20 - 12:40
Non-ablative removal of sub surface damages in grinded optical glass substrates by controlled melting of thin surface films using CO₂-laser radiation
Manuel Jung, Fraunhofer Institut for Laser Technology ILT Aachen, D

12:40 LUNCH



PROGRAM, 1ST DAY

7th European Seminar on Precision Optics Manufacturing

13:40 SESSION 2 - Measurement 1

13:40 - 14:00

A scanning point interferometer for flexible measurements of a large variety of optical surfaces

Marc Wendel, AMETEK GmbH, D

14:00 - 14:20

The NPMM200 - large area high resolution for freeform surface measurement

Christian Schober, University of Stuttgart, D

14:20 - 14:40

Setup of a new form measurement system for flat and slightly curved optics with diameters up to 1.5 metre

Gerd Ehret, Physikalisch-Technische Bundesanstalt, D

14:40 - 15:00

Extending the limits - Surface deviation in the Mid-Spatial-Frequency range by deflectometric measurements

Ronald Kometer, Hofbauer Optik Mess- und Prüftechnik, D

15:00 COFFEE

16:00 SESSION 3 - Measurement 2

16:00 - 16:20

On the metrology and analysis of MSF errors

Volha Kukso, Degendorf Institute of Technologie - IPH, D

16:20 - 16:40

Characterization of surface roughness and subsurface damage by light scattering

Marcus Trost, Fraunhofer Institute for Applied Optics and Precision Engineering IOF, D

16:40 - 17:00

**Simulating the actual imaging in the individual eye
A novel approach to calculating spectacle lenses**

Stephan Trumm, Rodenstock GmbH, D

17:00 - 17:20

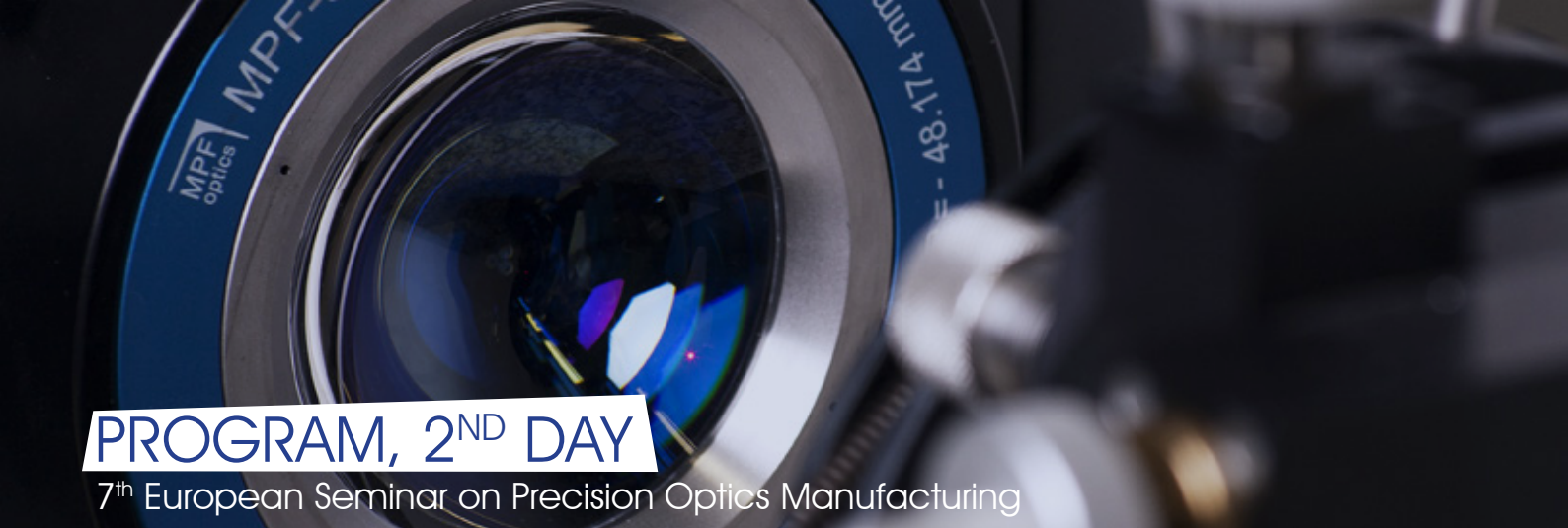
Deflectometry applied to freeform and large optical surface metrology

Hugo Jonquiere, SAFRAN REOSC, FR

17:30 Lab Tour and Poster session

19:00 Get2gether - BAVARIAN EVENING

Location: Brauerei-Gasthof ECK Bräustadel - Böbrach



PROGRAM, 2ND DAY

7th European Seminar on Precision Optics Manufacturing

2nd DAY, WEDNESDAY, APRIL 01st 2020

8:30 SESSION 4 - Manufacturing Optics

08:30 - 08:50

Minimization of polishing times in asphere production by ultra-precision grinding

Armin Rumpel, SwissOptic AG, CH

08:50 - 09:10

Influencing factors for a continuous wave UV-laser component

Jessica Stelzl, Deggendorf Institute of Technology – IPH, D

09:10 - 09:30

QED introduces new capability to address short radius concave surfaces and mid-spatial frequency errors

Jean Pierre Lormeau, QED Technologies, USA

09:30 - 09:50

Manufacturing technology of High-Precision meter scale grating substrate

Hu Chen, Shanghai Institute of Optics and Fine Mechanics, CN

09:50 - 10:10

Water technologies for Precision Optics Industry

Hortscht Michael, NGL CLEANING GmbH, D

10:10 COFFEE

10:50 SESSION 5 - Advanced Processes

10:50 - 11:10

Ultra-Precision Robotic Sub-aperture Polishing of Schmidt Corrector

Wan Songlin, Shanghai Institute of Optics & Fine Mechanics Cas, CN

11:10 - 11:30

Applications of “cold” atmospheric pressure plasmas in optics manufacturing

Gerhard Christoph, University of Applied Sciences and Arts HAWK, D

11:30 - 11:50

Optical Freeform Generation of N-BK7 by Fluorine-Based Plasma Jet Machining

Thomas Arnold, Leibniz Institute of Surface Engineering IOM, D

11:50 - 12:10

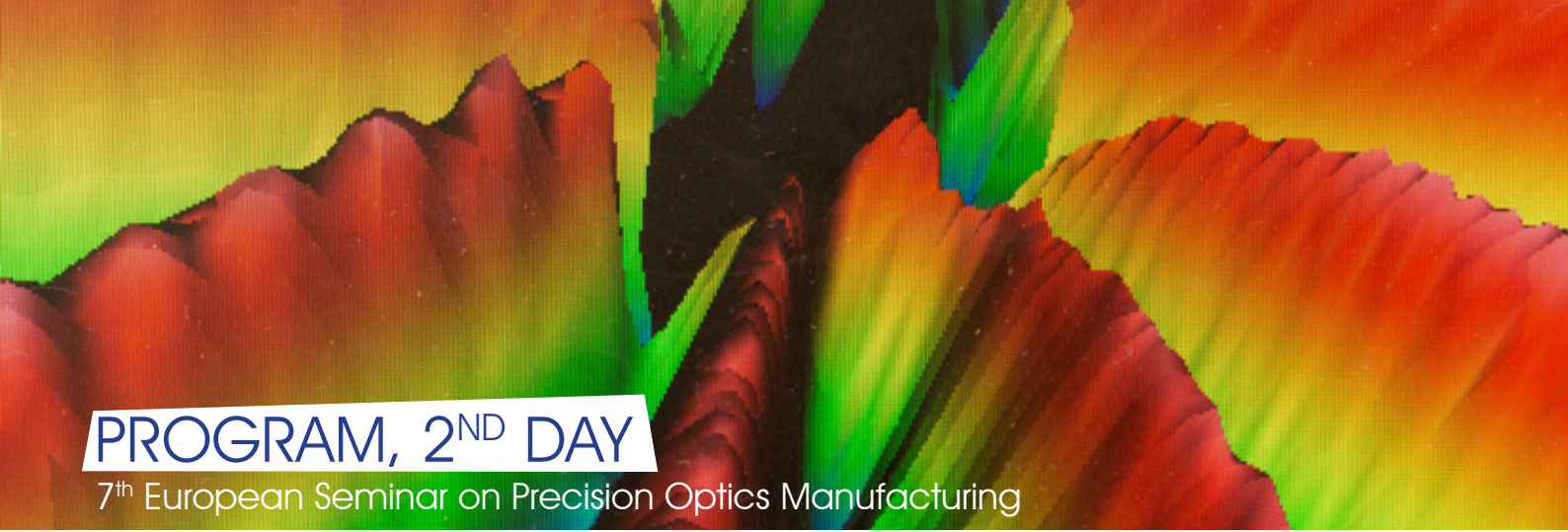
Automation of the dispensing and lens joining process for the manufacturing of lens doublets

Winfried Krafft, TRIOPTICS GmbH, D

12:10 - 12:30

On MSFE prevention strategies during polishing

Mario Pohl, Aalen University, D



PROGRAM, 2ND DAY

7th European Seminar on Precision Optics Manufacturing

12:30

LUNCH

13:30

SESSION 6 - Smart Production

13:30 - 13:50

First steps towards an automated polishing process chain using one robot

Simon Killinger, Deggendorf Institute of Technology – IPH, D

13:50 - 14:10

Machine learning model for robot polishing cell

Max Schneckenburger, Aalen University, D

14:10- 14:30

Transfer of methods from computer controlled polishing to 3D-printing

Matthias Eberhard, Aalen University, D

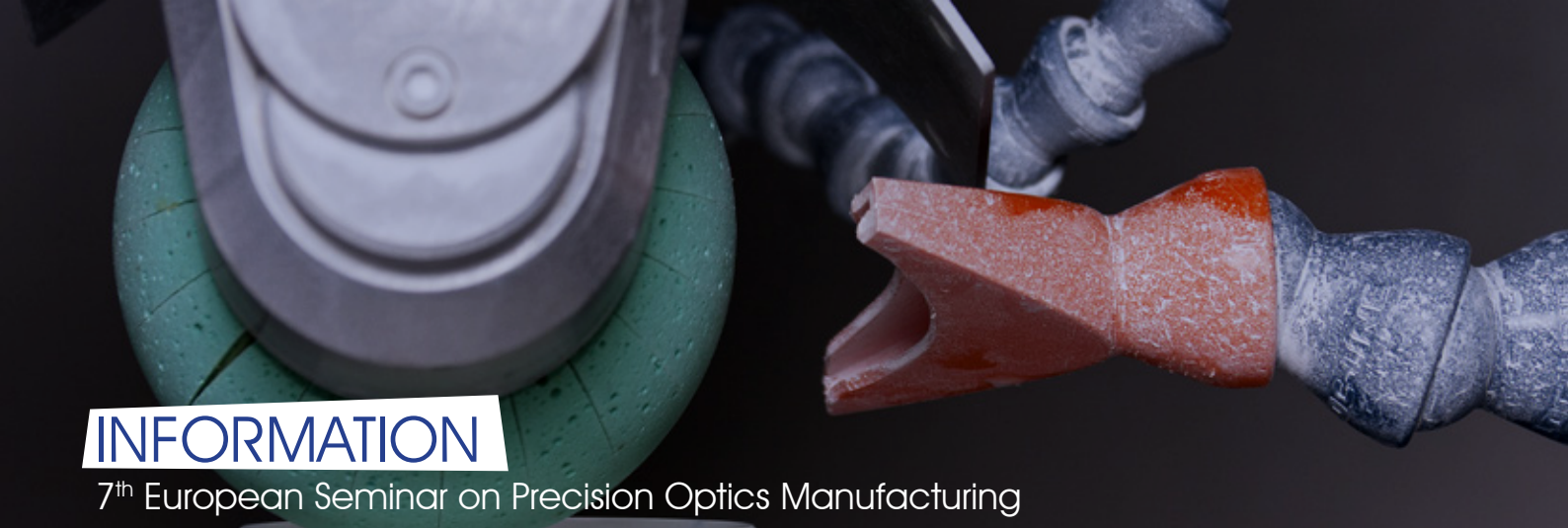
14:30 - 14:50

Autonomous fabrication of optics

Kai Brückmann, OptoTech Optikmaschinen GmbH, D

15:00

END OF THE SEMINAR



INFORMATION

7th European Seminar on Precision Optics Manufacturing

Registration

Please register before March 27th 2020. The seminar fee is EUR 430, incl. VAT.
pmit-ext.th-deg.de/iqw-seminare/dates/view/96

Conference location

Technologie Campus Teisnach
Technologiecampus 1, 94244 Teisnach, Germany
Directions can be found at www.th-deg.de/tc-teisnach-optik#anfahrt

Schedule

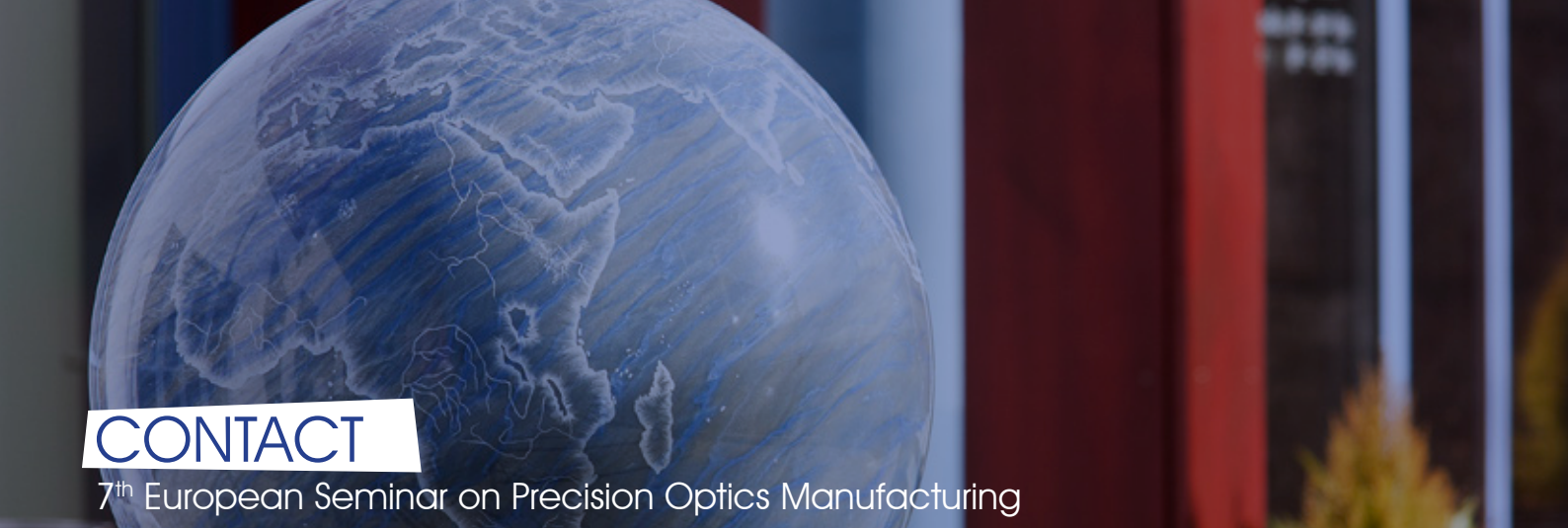
Seminar starts: Tuesday, March 31st 2020 at 10:30 am
Seminar ends: Wednesday, April 01st 2020 at 3:00 pm

Hotel recommendations amongst other fine places in the tourist area of Teisnach in the Bavarian forest:

Hotel Oswald:
Am Platzl 2, 94244 Kaikenried
Phone: +49 9923 84100
E-mail: info@hotel-oswald.de
Internet: www.hotel-oswald.de

Hotel "Zum Kramerwirt":
Bgm.-Fleischmann-Str. 1, 94244 Geiersthal
Phone: +49 9923 2181
E-mail: Hotel@Kramerwirt.de
Internet: www.kramerwirt.de

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Eck 1, 94255 Böbrach
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E-mail: info@brauerei-eck.de
Internet: www.brauerei-eck.de



CONTACT

7th European Seminar on Precision Optics Manufacturing

Announcement

8th European Seminar on Precision Optics Manufacturing, April 13th - April 14th 2021
Papers will be accepted by December 22nd 2020

Organisation

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IPH - Institut für Präzisionsbearbeitung
und Hochfrequenztechnik
Technologiecampus 1
94244 Teisnach, Germany
Phone +49 9923 80108-400
www.th-deg.de/tc-teisnach-optik#veranstaltungen

Seminar contact

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und Hochfrequenztechnik
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kerstin.niedermeier@th-deg.de