

## [ Broad Band Monitoring ]

The precise production of coating systems with complicated designs has developed to one of the major challenges in modern optical thin film technology.

Besides extended investigations in the stability and reproducibility of deposition techniques, a variety of approaches to control the growing layers has been studied on the way towards the targeted ideal process concept which would allow the realization of even extremely complicated coating designs in a linear chain without iteration steps.

Even though this ultimate production technique could not be achieved completely until now, the related research work of the last two decades has furnished enormous progress, especially in the field of online-monitoring in deposition processes.

The present workshop is dedicated to a comprehensive overview on the latest achievements in the area of thin film monitoring.

## [ How to get there ]

**Laser Zentrum Hannover e.V. (LZH),  
Hollerithallee 8, 30419 Hannover**



## [ Organizer ]

**PhotonicNet GmbH**

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## [ in cooperation with ]

**Laser Zentrum Hannover e.V.**

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# Photonic-Net

Innovationsnetz Optische Technologien

IN COOPERATION WITH



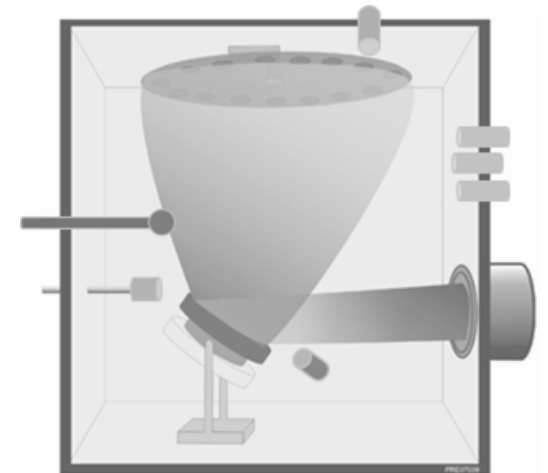
**Research Center  
for Surface Technology**



LASER ZENTRUM HANNOVER e.V.

## Monitoring in Thin Film Production

[ Hanover, Germany  
February 20th, 2018 ]





# Hanover

## February 20th, 2018



### [ Agenda ]

**Welcome** **09.30**  
 Detlev Ristau  
 Laser Zentrum Hannover e.V., Hanover, Germany

#### Session I: Fundamentals

**Monitoring and Control of Optical Deposition Processes** **09.40**  
 Henrik Ehlers  
 Laser Zentrum Hannover e.V., Hanover, Germany

**Design and Optical Monitoring** **10.10**  
 Alexander Tikhonravov  
 Lomonossov University, Moscow, Russia

**Optical Monitoring in Modern Deposition Processes** **10.40**  
 Detlef Arhilger  
 Bühler Group, Leybold Optics, Alzenau, Germany

**Coffee break, photograph** **11.10**

#### Session II: Applications

**Filter Systems** **11.30**  
 Marc Lappschies  
 Optic Balzers Jena GmbH, Jena, Germany

**Optical Monitoring of beamsplitters and antireflective coatings** **12.00**  
 Dirk Isfort  
 Carl Zeiss GmbH, Oberkochen, Germany

**Optical Monitoring in IBS** **12.30**  
 Kai Starke  
 CEC Cutting Edge Coatings GmbH,  
 Hanover, Germany

**Lunch break** **12.40**

#### Session III: Applications

**Chirped Mirrors** **14.00**  
 Vladimir Pervak  
 Ludwig-Maximilians-University, Munich, Germany

**Prospects for the enhancement of PIAD processes by monitoring of optical thickness and plasma parameters** **14.30**  
 Jens Harhausen  
 Leibniz-Institute for Plasma Science and Technology,  
 INP Greifswald, Germany

**Coffee break** **15.00**

#### Session IV: Advanced Monitoring Concepts

**Application of an Advanced BBM System for Uniformity Control by measuring on 2 Radii** **15.30**  
 Sina Malobabic  
 Laser Components GmbH, Olching, Germany

**Optical Monitoring: New Approaches** **16.00**  
 Sebastian Schlichting  
 Laser Zentrum Hannover e.V., Hanover, Germany

**Automatic generation of monochromatic monitoring spreadsheets** **16.30**  
 Tatiana Amotchkina,  
 Ludwig-Maximilians-University, Munich, Germany

**Final remarks** **17.00**

**Lab Tour LZH e.V. End** **17.10**  
**18.00**

### [ Registration ]

**Binding Registration**  
 Please register until **February 09th, 2018** at the latest

**Fax: +49 511 / 277-1650**

or **ONLINE**

**E-Mail: [veranstaltung@photonet.de](mailto:veranstaltung@photonet.de)**

I will attend the workshop

\_\_\_\_\_  
 Name

\_\_\_\_\_  
 Company / Institution

\_\_\_\_\_  
 Address

\_\_\_\_\_  
 Postal Code, City

\_\_\_\_\_  
 Phone No.

\_\_\_\_\_  
 E-Mail

\_\_\_\_\_  
 Member of competence network OT

\_\_\_\_\_  
 Date / Signature

**Venue:**  
 Laser Zentrum Hannover e.V.  
 Hollerithallee 8  
 30419 Hannover  
 Germany

**PARTICIPATION FEE** (plus VAT 19%):

290,00 € per person  
 230,00 € per person for Members of competence network OT