

3rd Announcement
The SSOM Engelberg Lectures on Optics 2009

Industrial Photonics

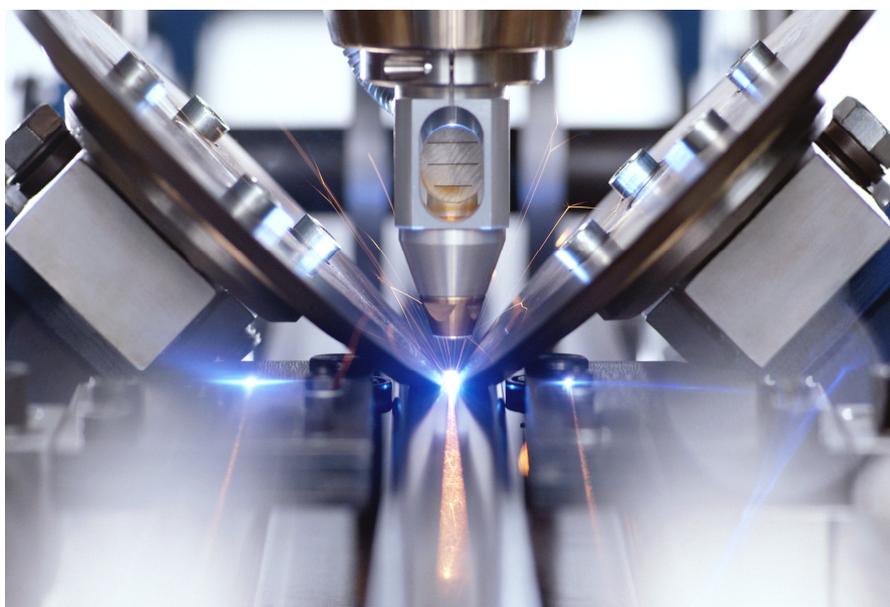
13th SSOM Engelberg Lectures on Optics
16-19 March 2009, Hotel Regina Titlis, Engelberg, Switzerland

Organised by: Swiss Society for Optics and Microscopy SSOM
SwissLaser Net SLN

Co-sponsored by : European Optical Society EOS
Swiss Academy of Engineering Sciences SATW

Organisation Committee: Beat Neuenschwander, Hans Peter Herzig, Christoph Harder

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beat.neuenschwander@bfh.ch



Switzerland's photonics industry stays at second place in Europe concerning the per capita production volume. Industrial photonics, with its most important sectors laser material processing, optical metrology & image processing and life science photonics, therefore plays an important role for the Swiss industry. The 13th SSOM Engelberg lectures on optics 2009 will therefore present and discuss the field of industrial photonics. About 25 lecturers from academic and industry will talk about newest academic developments, industrial needs and trends, processes and concepts. Industrial Photonics has been also the topic of the SATW – Transferkolleg in 2008, and some of the lecturers are winners of this event.

It's a tradition of the Engelberg lectures to bring students together with researchers from universities and industry. After the morning session, the afternoons are free to allow networking activities, discussions or sporting activities such as skiing. The evening sessions are followed by an enjoyable dinner.

Life Science Photonics

Monday Evening, March 16, 2009

	Topic	Referent	
17:30 – 17:40	Introduction to SSOM Engelberg Lectures	Dr. Christoph Harder	SwissLaser Net SLN
17:40 – 18:30	Introduction to Biomedical Imaging	Prof. Martin Frenz	IAP, University of Bern
18:30 – 19:20	Optical Coherence Tomography – Missing Link in Medical Imaging	Prof. Rainer Leitgeb	Biomedical Optics Group Medical University of Vienna
19:20 – 20:00	Introduction to Multiphoton Laser Scanning Microscopy	Dr. Markus Kohler	Carl Zeiss AG
20:00	Dinner		

Tuesday Morning, March 17, 2009

	Topic	Referent	
08:00 – 08:50	Functional Elements for Integrated THz Applications	Prof. Thomas Feurer	IAP, University of Bern
08:50 – 09:20	Optical Biosensors - Concepts and Applications of different optical readouts	Dr. Christoph Stamm	Zurich University of Applied Sciences zhaw
09:20 – 10:10	Optical detection and tracking of single unlabeled viruses	Dr. Philippe Kukura	Laboratory of Physical Chemistry, ETH Zürich
10:10 – 10:30	Coffee Break		
10:30 – 11:10	Optical detection for Microarray Imaging - More information from less sample	Dr. Markus Ehrat	Zeptosens – A Division of Bayer (Schweiz) AG
11:10 – 11:35	OCT: Techniques, History, State of the art	Dipl. Phys. Christoph Meier	Bern University of Applied Sciences
11:35 – 12:00	Laser Tissue Soldering	Serge Bogni	IAP, University of Bern
12:00	Lunch		

Photonic Tools

Tuesday Evening, March 17, 2009

	Topic	Referent	
18:00 – 19:00	The Fiber Laser as a Photonic Tool: Basics, State of the Art, Perspectives	Dr. Valerio Romano	IAP, University of Bern
19:00 – 20:00	Direct Diode: Trends and Limits	Dr. Christoph Harder	SwissLaser Net SLN
20:00	Dinner		

Wednesday Morning, March 18, 2009

	Topic	Referent	
08:00 – 08:50	Pulse energy scaling of femtosecond ultrafast thin-disk laser oscillators towards the 100- μ J level	Prof. Ursula Keller	Institute of Quantum Electronics, ETH Zürich
08:50 – 09:40	Beam Shaping for Industrial Laser Sources	Prof. Thomas Graf	Institut für Strahlwerkzeuge University of Stuttgart
09:40 – 10:10	Vertical cavity lasers for spectroscopy	Dr. Alexei Sirbu	Institute of Quantum Electronics and Photonics, EPFL
10:10 – 10:30	Coffee Break		
10:30 – 11:00	Precision Requirements in Optical Assembly	Jörg Pierer	CSEM Alpnach
11:00 – 11:30	UV-LED curing in industrial printing	Fritz Bircher	Bern University of Applied Sciences
11:30 – 12:00	Optoelectronic Simulation of Light-emitting and Light-harvesting Thin Film Devices	Dr. Daniele Rezzonico	FLUXiM AG Feusisberg
12:00	Lunch		

Photonic Manufacturing

Wednesday Evening, March 18, 2009

	Topic	Referent	
18:00 – 19:00	Materialbearbeitung im industriellen Umfeld	Dr. Bruno Frei	LASAG AG Thun
19:00 – 20:00	System- und Anlagentechnik für die Laserbasierte Fertigung	Dr. Rudolf Weber	Institut für Strahlwerkzeuge University of Stuttgart
20:00	Dinner		

Thursday Morning, March 19, 2009

	Topic	Referent	
08:00 – 08:50	Strahlführung und Prozessgrundlagen beim Bohren mit Laser	Andreas Michalowski	Institut für Strahlwerkzeuge University of Stuttgart
08:50 – 09:40	Laser Assisted Generation of Tribological Surfaces	Dr. Gabriel Dumitru	inspire ETH Zürich
09:40 – 10:10	Applications of ps-laser machining	Dr. Konstantins Jefimovs	EMPA Dübendorf
10:10 – 10:30	Coffee Break		
10:30 – 11:00	High Throughput Structuring: Basics, limitations and needs	Dr. Beat Neuenschwander	Bern University of Applied Sciences
11:00 – 11:20	Laser Dressing of Tools	Silvan Roth	IWF, ETH Zürich
11:20 – 11:40	Novel UV Laser Micro-machining	Karl Böhlen	CREALAS AG
11:40 – 12:00	Industrial applications of a fibre-based picosecond laser	Colin Moorhouse	COHERENT
12:00	Lunch		

Registration Fees

The fees per person include the lectures, accommodation and meals from Monday evening, 16th of March 2009 (start at 17h30, dinner at 20:00) until Thursday 19th of March 2009 (Lunch):

	Single room
SSOM, SLN or full EOS members:	CHF 900.-
Non-members:	CHF 1000.-
Student members:	CHF 800.-
Student non-members:	CHF 900.-

Conference participants in **double room**: CHF 60 reduction / person for full time attendance.

The workshop is conceived as a unit, single day attendances are not recommended. Exceptions will be charged CHF 350.- per topic for members and CHF 400.- per topic for non members.

SWISSLASER NET



SATW

Schweizerische Akademie der Technischen Wissenschaften
Académie suisse des sciences techniques
Accademia svizzera delle scienze tecniche
Swiss Academy of Engineering Sciences

● ● ● ● ● **Berner Fachhochschule**
Technik und Informatik



Engelberg Lectures Registration Form

13th SSOM Engelberg Lectures on Optics 2009

Industrial Photonics

Hotel Regina Titlis, Engelberg, 16 – 19 March 2009

First name, name: Title:

Institute / Company:

Address:

ZIP / City:

Phone: Fax: Email:

- SSOM, SLN or full EOS member
- Non-member
- Student / PhD student (confirmation of a professor enclosed)
- Single room
- Double room, shared with:

Or number of accompanying persons:

The cost for accompanying persons has to be paid directly to the hotel

Arrival and departure date:

Payment:

- Please send a payment order
- The lecture fees of CHF

Have been transferred to:

UBS Nr. 251-811046.01Q
SSOM, c/o IMT-Uni NE
UBS AG, Zürich Römerhof, PC 80-2-2

Please send the registration no later than 16th of February 2009 to:

Madame Mary-Claude Gauteaub Phone 032 718 3209
SSOM Engelberg Lectures Fax 032 718 3201
Institute of Microtechnology Email mary-claude.gauteaub@epfl.ch
Rue A. – L. Breguet 2
CH-2000 Neuchâtel

Maximum number of participants: 60

For registrations after February 16th an additional fee of CHF 50.- will be charged