

summer school

International Photonics Cluster

25th-29th of August 2008

Humboldt Universität
zu Berlin

Institute of Physics
Newtonstraße 15
12489 Berlin

Germany
www.optecbb.de/summerschool

Campus Berlin Adlershof

Illumination, Imaging and Projection

Contact

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Supported by

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Program committee

Günther Wernicke, HOLOEYE Photonics AG
wernicke@holoeye.de

Career and Matchmaking Component

It is our pleasure to welcome international students and companies to Berlin-Adlershof. As a crucial aspect of our Summer School 2008 program, we are excited to offer students and young professionals the chance to network, seek career guidance and placement with a wide array of corporations in the photonics industry. Throughout the program participants will:

- Receive dedicated support from a job placement team
- Visit local companies
- Meet contacts from local industry players
- Attend sponsored company receptions

Exhibition


An enlarged exposition of interested companies and potential sponsors will be planned as a feedback from the 1st summer school.

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WISTA-MANAGEMENT GMBH

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OpTecBB



Monday, 25th of August

14.00 Registration
19.00 Welcome Reception

Tuesday, 26th of August

09.00 **Welcome address**
Prof. Dr. Günther Tränkle, Berlin
Chairman OpTecBB/Ferdinand-Braun-Institut für
Höchstfrequenztechnik (FBH)
Welcome of the hosting department
Prof. Dr. Oliver Benson, Berlin
Department of Physics, Humboldt-Universität zu Berlin

09.30-10.30 **Propagation of Laser Beams**
Prof. Dr. Horst Weber, Berlin
Technische Universität Berlin, Institut für Optik und Atomare Physik

10.30-11.00 **Coffee Break**

11.00-11.30 **LED technology and applications**
Dr. Peter Brick, Regensburg
Osram Opto Semiconductors GmbH, LED Application
Engineering - Optics

11.30-12.00 **LED Illumination in outdoor areas**
Prof. Dr. P. W. Schmits, H.-G. Schmidt, Berlin
Semperlux Aktiengesellschaft Lichttechnische Werke

12.00-12.30 **LEDs twice – for illumination and information**
Jelena Gubor, Berlin
Fraunhofer Institut für Nachrichtentechnik Heinrich-Hertz-Institut

12.30-14.00 **Lunch Break**

14.00-14.30 **Fundamental Solid-State Light Emitters: Quantum Limits of Imaging & Optical Communication**
Prof. Dr. Oliver Benson, Berlin
Department of Physics, Humboldt-Universität zu Berlin

14.30-15.00 **ZnO: New quantum and hybrid structures for opto-electronic applications**
Prof. Dr. Fritz Henneberger, Berlin
Department of Physics, Humboldt-Universität zu Berlin

15.00-15.30 **Chances and limits of LED headlamps**
Prof. Dr.-Ing. Stephan Völker, Berlin
Technische Universität Berlin, Fachgebiet Lichttechnik (E6)

15.30-16.00 **Coffee Break**

16.00-16.30 **Miniaturized and holographic projection**
Sven Krüger, Berlin
HOLOEYE Photonics AG

16.30-17.00 **Optics-Design of Head-up Displays with CAD compatible free-form surfaces**
Prof. Peter Ott, Heilbronn
Hochschule Heilbronn, Institut für Mechatronik,
Labor Technische Optik

Wednesday, 27th of August

09.00-10.00 **Characterization of Laser Beams**
Prof. Dr. Horst Weber, Berlin
Technische Universität Berlin, Institut für Optik und Atomare Physik

10.00-10.30 **Beam Characterization of the Free Elektron Laser FLASH**
Dr. Bernhard Flöter, Göttingen
Laser-Laboratorium Göttingen e.V., Optics / Short
Wavelengths Department

10.30-11.00 **Coffee Break**

11.00-11.30 **GaN based laser diodes for the blue and green spectral range**
Prof. Dr. Michael Kneissl, Berlin
Technische Universität Berlin, Institut für Festkörperphysik

11.30-12.00 **Compact laser diodes in hybrid structures**
Dr. Katrin Paschke, Berlin
Ferdinand-Braun-Institut für Höchstfrequenztechnik (FBH)

12.00-12.30 **Solid State - Tuneable White Light**
Nico Morgenbrod, Berlin
OSRAM GmbH, I OSR DO R&D W-B

12.30-13.30 **Lunch Break**

13.30-20.00 **Excursion**

Thursday, 28th of August

09.00-09.30 **Modern optics concepts for illumination and display applications**
Prof. Dr. Matthias Brinkmann, Darmstadt
University of Applied Sciences - Darmstadt, Mathematics and
Science Faculty

09.30-10.00 **Measuring principles for LED lamps**
Prof. Dr. Stephan Völker, Herr Druwe, Berlin
Technische Universität Berlin, Fachgebiet Lichttechnik

10.00-10.30 **Application of light emitting diodes (LEDs) in digital holographic phase contrast microscopy**
Dr. Kemper, Münster
Center for Biomedical Optics and Photonics, University Münster

10.30-11.00 **Coffee Break**

11.00-11.30 **Deflectometry, microscopic and macroscopic pattern projection for shape measurement**
Christian Kohler, Stuttgart
Universität Stuttgart, Institut für Technische Optik

11.30-12.00 **Ultracompact laser projection systems based on two-dimensional resonant microscanning mirrors**
Michael Scholles, Dresden, FhG-IPMS

12.00-12.30 **Spatial light modulation and projection of few-femtosecond laser pulses with liquid-crystal-on-silicon microdisplays**
Martin Bock, Dr. Rüdiger Grunwald, Berlin
Max-Born-Institut für Nichtlineare Optik und Kurzzeitspektroskopie

12.30-14.00 **Lunch Break**

14.00-14.30 **Single shot two-wavelength contouring for motion analysis of fast moving MEMS**
T. Hansel, G. Steinmeyer, R. Grunwald and U. Griebner, V. Kebbel, J. Bonitz and Ch. Kaufmann, Berlin
Max-Born-Institut für Nichtlineare Optik und Kurzzeitspektroskopie

14.30-15.00 **Spatial Beam shaping of ultrashort laser pulses**
L. Ehrentraut, A. Rosenfeld, Berlin
Max-Born-Institut für Nichtlineare Optik und Kurzzeitspektroskopie

15.00-15.30 **Organic light emitting diodes – a new solid state light source technology**
Joerg Amelung, Dresden
Fraunhofer Institute Photonic Microsystems Dresden

15.30-16.00 **Coffee Break**

16.00-16.30 **3D holographic photolithography**
Richard McWilliam, Durham, UK
Durham University

16.30-17.30 **Laser Physics and Physics with Lasers**
Prof. Dr. G. Marowsky, Göttingen
Laser-Laboratorium Goettingen e.V.

19.00 **Reception for all Participants and Organizers**

Friday, 29th of August

09.00-09.30 **Adaptive optics in microscopy**
Dr. Andreas Hermerschmidt, Berlin
HOLOEYE Photonics AG

09.30-10.00 **Spatial light modulators for optical trapping and image processing**
Dr. Alexander Jesacher, Innsbruck
Division for Biomedical Physics
Innsbruck Medical University

10.00-10.30 **3D Elemental Imaging with X-rays**
Dr. Birgit Kanngießler, Berlin
Technische Universität Berlin, Institut für Optik und Atomare Physik

10.30-11.00 **Coffee Break**

11.00-11.30 **Rewritable Holographic 3D Displays**
Ram Voorakaranam, Tucson, Arizona, USA
College of Optical Sciences, University of Arizona, Tucson, Arizona

11.30-12.00 **Holographic 3DTV Process Chain with Focus on Displays**
Mostafa Agour, Claas Falldorf, Christoph von Kopylow, Silke Huferath-von Luepke and Khaed M. Yassie, Bremen
Bremer Institut für Angewandte Strahlforschung

12.00-12.30 **Free2C digital - Next Generation auto stereoscopic 3D Display**
N.N., Berlin
Fraunhofer Institut für Nachrichtentechnik Heinrich-Hertz-Institut

12.30-14.00 **Lunch Break**

Registration

Fax: +49.30.6392-1729

Last Name.....

First Name.....

Address.....

City/Country.....

Phone/Fax.....

E-mail.....

Institution.....
(when applicable)



summer
school

International Photonics Cluster

Participation fee: 300,00 EUR
Members of Competence Networks 150,00 EUR
Optical technologies: 50,00 EUR
Students

Date.....

Signature.....

Please complete and fax this form before July 31st to:
International Photonics Cluster Summer School,
Mr. Bernd Weidner, +49.30.6392-1729, Email: summerschool@optecbb.de

We request that you please transfer the
participation fee upon receipt of confirmation
of registration.