



World of Photonics Congress Preview

Munich ICM

International Congress
Centre Munich, Germany

14–19 June 2009



19th International Congress on Photonics in Europe
collocated with LASER World of PHOTONICS 2009

www.photonics-congress.com

Preface

This booklet contains the complete schedule for the World of Photonics Congress, the leading international congress for optical technologies in Europe, which is being held in conjunction with LASER World of PHOTONICS 2009 from June 14–19, 2009.

Optical technologies are a key source of momentum in several branches of industry. Both industry and science play an important role when it comes to global challenges in the energy, environment and healthcare sectors, and exchanging ideas and information with representatives of the commercial and political sectors at international events such as the World of Photonics Congress is an excellent opportunity to work together to promote research, development and the implementation of their findings in concrete applications.

In 2007, the World of Photonics Congress experienced substantial growth. In more than 2,300 speeches and presentations, leading scientists from around the world presented their research findings to 3,100 participants and examined future scenarios for optical technologies.

In 2009, the World of Photonics Congress, which is sponsored by the German Federal Ministry of Education and Research, will feature some of the most well known events in the sector for optical technologies. The congress consists of the following conferences:

- CLEO Europe/EQEC (organized by EPS, OSA, IEEE/LEOS)
- European Conferences on Biomedical Optics (ECBO)
(organized by OSA and SPIE and the German Biophotonics Research Program as a cooperating organization)
- Optical Metrology (organized by SPIE Europe)
- Lasers in Manufacturing (LiM 2009) (organized by WLT)
- Frontiers in Electronic Imaging, Manufacturing of Optical Components
(organized by EOS)
- Medical Laser Applications (organized by DGLM)
- Application Panels—Lasers and Photonics in Actual Practice
(organized by MMG & its partners)

In 2009, the World of Photonics Congress will feature presentations of scientific research projects and their findings. However, a series of application-oriented events titled “Application Panels—Lasers and Photonics in Actual Practice” is also being incorporated into this year’s program of events to bridge the gap between theory and practice. In application-oriented presentations, industry representatives will report on the latest challenges and potential solutions in the sector for optical technologies and enter into a dialog with potential users.

We are convinced that the World of Photonics Congress will give visitors a perfect combination of scientific and application-oriented approaches. Holding this event in conjunction with LASER World of PHOTONICS 2009, the world’s largest exhibition for optical technologies, gives visitors access to a unique network of experts representing all company and organization levels in various disciplines.



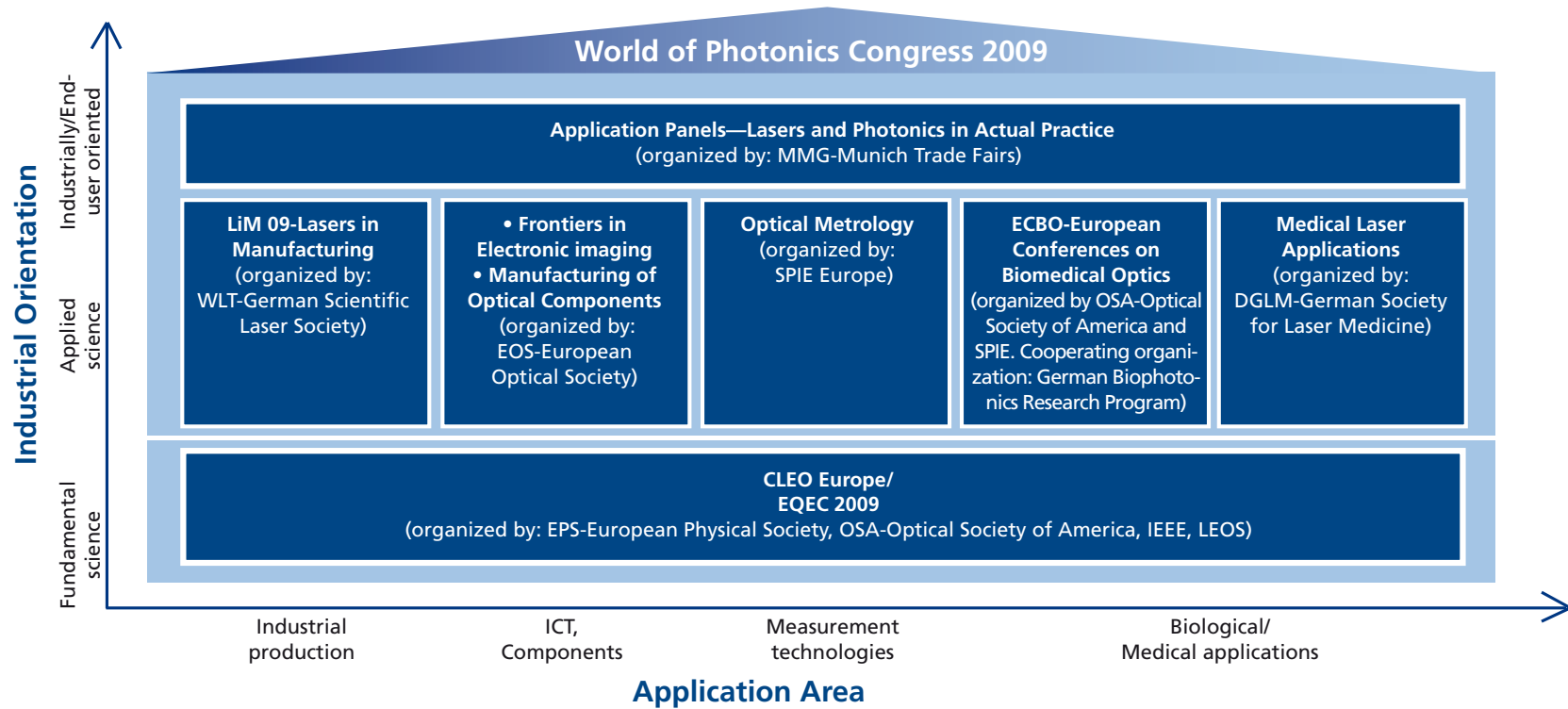
Prof. Peter Loosen
President of the Steering Committee
World of Photonics Congress



Klaus Dittrich
Managing Director
Messe München International

Structure of the World of Photonics Congress 2009

The new organizational structure of the World of Photonics Congress, which indicates its application orientation and the topics covered by the various conferences, gives congress participants optimum transparency, which makes it perfect for planning purposes.



Conference Fees

	Early Bird until latest May 4	On Site
Full member*	EUR 460	EUR 535
Non-member*	EUR 580	EUR 660
Student member**	EUR 100	EUR 140
Student non-member**	EUR 140	EUR 175
One day	EUR 200	EUR 250

* incl. Proceedings

** some conferences do not include proceedings in this package

Contact

CLEO®/EUROPE-EQEC 2009

EUROPEAN CONFERENCE ON LASERS AND ELECTRO-OPTICS AND EUROPEAN QUANTUM ELECTRONICS CONFERENCE 2009

EPS—European Physical Society
B. P. 2136, 68060 Mulhouse, FRANCE
Tel. (+33 3) 89 32 94 48, Fax (+33 3) 89 32 94 49
conferences@eps.org

EUROPEAN CONFERENCES ON BIOMEDICAL OPTICS (ECBO)

OSA—Optical Society of America
2010 Massachusetts Ave., NW
Washington, DC 20036-1012 USA
Tel. (+1) 202 416 1907 or 800 723 4632 (in N. America)
Fax (+1) 202 416 6140
cust.serv@osa.org

FRONTIERS IN ELECTRONIC IMAGING MANUFACTURING OF OPTICAL COMPONENTS

EOS—European Optical Society
Hollerithallee 8, 30419 Hannover, GERMANY
Tel. (+49 5 11) 2 78 81 59, Fax (+49 5 11) 2 78 81 19
munich@myeos.org, www.myeos.org/MUNICH2009

LASERS IN MANUFACTURING (LIM 2009)

WLT—Wissenschaftliche Gesellschaft für Lasertechnik e.V.
c/o Laser Zentrum Hannover e.V.
Hollerithallee 8, 30419 Hannover, GERMANY
Tel. (+49 5 11) 27 88-4 32 (Mr. P. Jaeschke), Fax (+49 5 11) 27 88-1 00
lim@lzh.de, www.lzh.de/lim2009-wlt

OPTICAL METROLOGY

SPIE Europe
2 Alexandra Gate, Ffordd Pengam, CF24 2SA, Cardiff, UK
Tel. (+44 29) 20 89 47 47, Fax (+44 29) 20 89 47 50
info@spieurope.org

MEDICAL LASER APPLICATIONS

Deutsche Gesellschaft für Lasermedizin e. V.
c/o LMU München, Kontaktstelle für Forschungs- und Technologietransfer
Frauenlobstr. 7a, 80337 München, Germany
Tel. (+49 89) 2 18 07 22 56, Fax (+49 89) 2 18 07 22 59
dglm2009@lmu.de, www.lmu.de/dglm2009

Partners of the World of Photonics Congress



CLEO®/EQEC 2009



DGLM

Deutsche Gesellschaft für
Lasermedizin e.V.



EOS

European Optical Society



EPS

European Physical Society Quantum
Electronics and Optics Division



IEEE/LEOS

IEEE Laser and Electro-Optics Society



OSA

Optical Society of America



SPIE Europe



WLT

German Scientific Laser Society



German Biophotonics Research Program

Supported by



Federal Ministry
of Education
and Research



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World of Photonics Congress 2009

CLEO®/EUROPE-EQEC 2009

EUROPEAN CONFERENCE ON LASERS AND ELECTRO-OPTICS AND
EUROPEAN QUANTUM ELECTRONICS CONFERENCE 2009

Organized by European Physical Society (EPS)

Sponsored by EPS Quantum Electronics and Optics division, OSA, IEEE/LEOS

Sunday, 14 June 2009 Monday, 15 June 2009 Tuesday, 16 June 2009 Wednesday, 17 June 2009 Thursday, 18 June 2009 Friday, 19 June 2009

CLEO®/Europe 2009 General Chairs: Dudley (FR), De La Rue (GB) / Program Chairs: Pollnau (NL), Russell (DE)

SOLID-STATE LASERS	Chair: Clarkson (GB)
SEMICONDUCTOR LASERS	Chair: Fischer (GB)
HOLOGRAPHY, ADAPTIVE OPTICS, OPTICAL STORAGE AND PHOTOREFRACTIVES	Chair: Brignon (FR)
APPLICATIONS OF NONLINEAR OPTICS	Chair: Zheltikov (RU)
OPTICAL MATERIALS, FABRICATION AND CHARACTERISATION	Chair: Ryba-Romanowski (PL)
ULTRAFAST OPTICS, ELECTROOPTICS AND APPLICATIONS	Chair: Morgner (DE)
HIGH-FIELD LASER PHYSICS AND APPLICATIONS	Chair: Nisoli (IT)
OPTICAL SENSING AND METROLOGY	Chair: Ludvigsen (FI)
OPTICAL TECHNOLOGIES FOR LIGHTWAVE COMMUNICATIONS AND NETWORKS	Chair: Barry (IE)
FIBRE AND GUIDED WAVE LASERS AND AMPLIFIERS	Chair: Wadsworth (GB)
PHOTONIC CRYSTALS, PHOTONIC NANOSTRUCTURES AND INTEGRATED OPTICS	Chair: Wiersma (IT)
BIOPHOTONICS AND APPLICATIONS	Chair: Dholakia (GB)

EQEC 2009 General Chairs: Meschede (DE), Mølmer (DK) / Program Chairs: Mitschke (DE), Zheludev (GB)

QUANTUM OPTICS	Chair: Zadkov (RU)
QUANTUM AND ATOM OPTICS IN MICROSTRUCTURES	Chair: Garcia de Abajo (ES)
COLD ATOMS AND MOLECULES, BOSE-EINSTEIN CONDENSATES	Chair: Sengstock (DE)
QUANTUM INFORMATION AND CRYPTOGRAPHY	Chair: Rarity (GB)
PRECISION METROLOGY AND FUNDAMENTAL LIMITS	Chair: Ducloy (FR)
FUNDAMENTALS OF NONLINEAR OPTICS	Chair: Fazio (IT)
ULTRAFAST PHENOMENA AND FREQUENCY COMBS	Chair: Steinmeyer (DE)
DYNAMICS, INSTABILITIES, AND PATTERNS	Chair: Firth (GB)
NANOPHOTONICS, PLASMONICS, NEAR FIELD OPTICS	Chair: Bozhevolnyi (DK)
METAMATERIALS, OPTICAL INVISIBILITY, AND TRANSFORMATION OPTICS	Chair: Giessen (DE)

CLEO®/EUROPE-EQEC 2009 JOINT SYMPOSIUM

LARGE SCALE PHOTONIC INTEGRATION	Chairs: Baets (BE), Melloni (IT)
QUANTUM STATES OF LIGHT ON DEMAND: CONCEPTS TO APPLICATIONS	Chairs: Sergienko (US), Wilkens (DE)
LASER TWEEZERS AND LIGHT MATTER INTERACTIONS	Chairs: Maier (DE), Padgett (GB)
TERAHERTZ SOURCES AND APPLICATIONS	Chairs: Dekorsy (DE), Faist (CH)
OPTICS BEYOND THE RAYLEIGH RESOLUTION LIMIT	Chairs: Tsai (TW), Van Hulst (ES)

CLEO®/EUROPE 2009 PLENARY

PROGRESS IN ULTRAFAST OPTICS	Speaker: Ippen (US)
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EQEC 2009 PLENARY

EXPLORING THE QUANTUMNESS OF LIGHT	Speaker: Haroche (FR)
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CLEO®/EUROPE 2009 TUTORIALS

APPLICATIONS OF FEMTOSECOND LASERS IN MATERIALS PROCESSING	Speaker: Mazur (US)
NANOPHOTONICS—RESEARCH CHALLENGES AND APPLICATIONS	Speaker: Forchel (DE)

EQEC 2009 TUTORIALS

METAMATERIALS	Speaker: Boardman (GB)
OPTICAL CAVITY QUANTUM ELECTRODYNAMICS	Speaker: Rempe (DE)

CLEO®/EUROPE 2009 KEYNOTES

VISIBLE AND ULTRAVIOLET SEMICONDUCTOR DISK LASERS	Speaker: Dawson (GB)
FEMTOSECOND-LASER-WRITTEN OPTICAL WAVEGUIDES FOR OPTICAL COMMUNICATIONS AND BIOPHOTONIC APPLICATIONS	Speaker: Cerullo (IT)
ASTROPHOTONICS: THE NEXT WAVE IN OBSERVATIONAL COSMOLOGY	Speaker: Bland-Hawthorn (AU)
NEW HORIZONS OF NANOPLASMONICS: FROM ATTOSECONDS TO KILOELECTRONVOLTS	Speaker: Stockman (US)

EQEC 2009 KEYNOTES

QUANTUM SUPEROSCILLATIONS AND OPTICAL SUPERRESOLUTION	Speaker: Berry (GB)
METAMATERIALS	Speaker: Engheta (US)
PLASMONICS	Speaker: Polman (NL)
QUANTUM INFORMATION	Speaker: Woerdman (NL)

**EUROPEAN CONFERENCES ON BIOMEDICAL OPTICS
(ECBO 2009)**Organized by OSA / Sponsored by OSA and SPIE
In cooperation with the German Biophotonics Research Program

Sunday, 14 June 2009	Monday, 15 June 2009	Tuesday, 16 June 2009	Wednesday, 17 June 2009	Thursday, 18 June 2009
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General Chairs: Mycek (US), Drexler (GB) / Program Chairs: Hitzengerber (AT), Pogue (US)

ADVANCED MICROSCOPY TECHNIQUES	Chairs: Campagnola (US), Stelzer (DE), von Bally (DE)
CLINICAL AND BIOMEDICAL SPECTROSCOPY	Chairs: Georgakoudi (US), Popp (DE), Svanberg (SE)
DIFFUSE OPTICAL IMAGING	Chairs: Cubeddu (IT), Hielscher (US)
MOLECULAR IMAGING	Chairs: Licha (DE), Lin (US)
NOVEL OPTICAL INSTRUMENTATION FOR BIOMEDICAL APPLICATIONS	Chairs: Depeursinge (CH), Vitkin (CA)
OPTICAL COHERENCE TOMOGRAPHY AND COHERENCE TECHNIQUES	Chairs: Andersen (DK), Bouma (US)
THERAPEUTIC LASER APPLICATIONS AND LASER-TISSUE INTERACTIONS	Chairs: Sroka (DE), Lilje (CA)

ECBO PLENARY: BRIDGING THE OCEAN OF BIOMEDICAL OPTICS – Sunday, 14 June 2009

THE EMERGING ERA OF HIGH-PERFORMANCE MESOSCOPIC AND MACROSCOPIC PHOTONIC IMAGING	Speaker: Ntziachristos (DE)
NEW TECHNIQUES FOR OUT-OF-FOCUS BACKGROUND REJECTION	Speaker: Mertz (US)

LASERS IN MANUFACTURING LIM 2009

Organized by WLT in cooperation with LIA, JLPS, AILU, ELI, SLN

Monday, 15 June 2009	Tuesday, 16 June 2009	Wednesday, 17 June 2009	Thursday, 18 June 2009
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General Chairs: Ostendorf (DE), Vollertsen (DE)

MACRO PROCESSING CONFERENCE	Chair: Petring (DE)
MICRO PROCESSING CONFERENCE	Chair: Graf (DE)

OPTICAL METROLOGY

Organized by SPIE Europe / Sponsored by SPIE Europe / In cooperation with EOS, WLT

Sunday, 14 June 2009	Monday, 15 June 2009	Tuesday, 16 June 2009	Wednesday, 17 June 2009	Thursday, 18 June 2009
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Symposium Chair: Wolfgang Osten (DE)

OPTICAL MEASUREMENT SYSTEMS FOR INDUSTRIAL INSPECTION VI	Chair: Lehmann (DE); Co-chairs: Osten (DE), Gorecki (FR)
MODELLING ASPECTS IN OPTICAL METROLOGY	Chair: Bosse (DE); Co-chairs: Bodermann (DE), Silver (US)
O3A OPTICS FOR ARTS, ARCHITECTURE AND ARCHAEOLOGY	Chairs: Pezzati (IT), Salimbeni (IT); Co-chairs: Asmus (US), Burmester (DE), Castillejo (GB), de Tagle (NL), Gurov (RU), Menu (FR), Saunders (GB), Targowski (PL)

FRONTIERS IN ELECTRONIC IMAGINGOrganized by the European Optical Society / Sponsored by PCO Imaging
Technical Co-sponsors: Photonik, Optics & Laser Europe / Co-operating societies: Optecnet, SPIE Europe**Monday, 15 June 2009****Tuesday, 16 June 2009****Wednesday, 17 June 2009**

General Chair: Seitz (CH)

SINGLE-PHOTON IMAGING

Chair: Kawahito (JP)

**APPLICATION-SPECIFIC, HIGH-PERFORMANCE
IMAGE SENSORS**

Chairs: Fowler (US), Dierickx (BE)

NEW MATERIALS FOR ELECTRONIC IMAGING

Chair: Lauxtermann (US)

ADVANCED OPTICAL 3D IMAGING

Chairs: Charbon (NL), Simoni (IT)

MANUFACTURING OF OPTICAL COMPONENTSOrganized by the European Optical Society / Sponsored by PCO Imaging
Technical Co-sponsors: Photonik, Optics & Laser Europe / Co-operating societies: Optecnet, SPIE Europe

General Chairs: Beckstette (DE), Shore (UK)

PRECISE OPTICS FABRICATION

Chairs: Fähnle (CH), Shore (UK)

MICRO-OPTICS AND STRUCTURED SURFACE TECHNOLOGIES

Chairs: Aschke (DE), Tünnermann (DE)

HIGH VOLUME MANUFACTURING OF OPTICAL COMPONENTS

Chairs: Bäumer (NL), Fischer (DE)

MEDICAL LASER APPLICATIONS

Organized by Deutsche Gesellschaft für Lasermedizin e.V. (DGLM e.V.)

Sunday, 14 June 2009**Monday, 15 June 2009**

General Chairs: Sroka (DE) / Scientific Board: Berlien (DE), Beuthan (DE), Hibst (DE), Hüttmann (DE), Kautz (DE), Philipp (DE), Rück (DE), Stepp (DE), Waidelich (DE)

LASERMED-UPDATE

Chair: Scientific Board

LASERMED-SCIENCE

Chair: Scientific Board

LASERMED-HANDSON

Chair: Scientific Board

WORLD OF PHOTONICS JOINT SESSIONS**Sunday, 14 June 2009****Monday, 15 June 2009****Tuesday, 16 June 2009****Wednesday, 17 June 2009****Thursday, 18 June 2009****Friday, 19 June 2009****WORLD OF PHOTONICS JOINT SESSIONS BETWEEN LASERS IN MANUFACTURING AND CLEO*/EUROPE-EQEC 2009****FIBER LASERS AND AMPLIFIERS: CONCEPTS TO APPLICATIONS**

Chair: Vollertsen (DE)

FUNDAMENTALS AND MODELLING OF MATERIALS PROCESSING WITH LASERS

Chairs: Graf (DE), Fotakis (GR)

WORLD OF PHOTONICS JOINT SESSIONS BETWEEN MANUFACTURING OF OPTICAL COMPONENTS AND OPTICAL METROLOGY**METROLOGY OF ADVANCED OPTICS**

Chairs: de Groot (US), Pruss (DE)

APPLICATION PANELS—LASERS AND PHOTONICS IN ACTUAL PRACTICEOrganized by MMI Inc. / In cooperation with Bayerisches Laserzentrum GmbH,
Coherent Lambda Physik GmbH, Fraunhofer Institute for Applied Optics and Precision Engineering IOF, Fraunhofer Institute
für Laser Technology ILT, Institute of Photonic Technology, LIMO Lissotschenko Mikrooptik GmbH, Rofin-Sinar Technologies Inc., SCHOTT AG, TOPTICA Photonics AG**Monday, 15 June 2009****Tuesday, 16 June 2009****Wednesday, 17 June 2009****VISIONS FOR FUTURE DIAGNOSTICS—
LASER BASED PHOTON AND PARTICLE BEAMS
FOR MEDICAL APPLICATIONS**

Chairs: Sroka (DE), Stepp (DE)

**SHORT-PULSE LASERS IN COMMERCIAL
APPLICATIONS**

Chair: Schmidt (DE)

LASERS FOR PHOTOVOLTAICS

Chair: Rütering (DE)

LASERS FOR BIOPHOTONICS

Chair: Renner (DE)

**NOVEL DEVELOPMENTS IN SOLID STATE LASER
TECHNOLOGY**

Chairs: Tünnermann (DE), Bachmann (DE)

PHOTOVOLTAICS TECHNOLOGIES UTILIZING LASERS

Chair: Hendel (DE)

VISIONS FOR FUTURE DIAGNOSTICS—ONCOLOGY

Chair: Popp (DE)

SUSTAINABLE ILLUMINATION CONCEPTS

Chairs: Bräuer (DE), Wessler (DE)

**OPTICAL COMPONENTS AND MATERIAL FOR
HIGH-POWER LASER**

Chairs: Auchter-Krummel (DE), Aschke (DE)

APPLICATIONS OF HIGH BRILLIANCE LIGHT SOURCES

Chair: Damm (DE)

RAPID MANUFACTURING

Chair: Meiners (DE)