

2010 | OSA Optics & Photonics Congress

CALL for PAPERS

ADVANCED PHOTONICS: OSA OPTICS & PHOTONICS CONGRESS

Access Networks and In-house
Communications (ANIC)

Bragg Gratings, Photosensitivity
and Poling in Glass Waveguides
(BGPP)

Nonlinear Photonics (NP)

Optical Sensors (Sensors)

Signal Processing in Photonic
Communications (SPPCom)

COLLOCATED WITH THE RENEWABLE ENERGY
OPTICS & PHOTONICS CONGRESS

June 21-24, 2010

Karlsruhe-Messe und Kongress
(Conference Center)
KARLSRUHE, GERMANY

SUBMISSION DEADLINE:
JANUARY 20, 2010

12:00 PM NOON EST (17:00 GMT)
Extended through February 9, 2010

12:00 p.m. noon EST (17:00 GMT)
www.osa.org/congresses

OSA®

OPTICAL SENSORS (Sensors)

June 21-24 | 2010

Optical Sensors will bring together physicists and engineers, researchers and developers applying recent research related to the topics covered on the topical meeting. The topical meeting will address optical fiber sensors, and include all aspects of such sensors, from fiber based signal sources, sensor fibers through detection schemes and applications.

PAPER TOPICS

Lasers and Sources for Sensors

- Short pulsed lasers
- High power lasers
- Supercontinuum lasers
- Infrared Supercontinuum lasers

Specialty Fibers for Sensors

- Fibers with high Non-linearity
- Fibers for Raman effect in IR
- Microstructured fibers
- Polymer fibers
- Double clad fibers

Slow and Fast Light in Sensors

- Optical sensors based on fast or slow light
- Waveguide and free-space technologies for generating slow or fast light

- Characterization of fast and slow light properties
- Connection between group index and sensor properties
- Fiber-based sensors utilizing slow or fast light

Applications, Techniques and Systems

- Chemical / biological / medical sensors
- Physical / mechanical sensors
- Sensors for security and defense
- Sensors for harsh environments
- Distributed sensors
- Nano-engineered sensors
- Metrology (calibration, validation)
- Signal processing and data management

INVITED SPEAKERS (As of November 2009)

Tutorial Speaker

Photonic Crystal Fibres in Sensing and Metrology, **Philip St. John Russell**, Max Planck Inst. for the Science of Light, Germany

Invited Speakers

Fibre Optic Sensors: Achievements and Prospects, **Brian Culshaw**, Univ. of Strathclyde, UK

PCF based Optical Parametric Oscillators in the Visible, **John Harvey**, Univ. of Auckland, Australia.

Fiber Optic Nerve Systems for Smart Materials and Smart Structures, **Kazuo Hotate**, Univ. of Tokyo, Japan

Distributed and Polymer Optical Fiber Sensors, **Katerina Krebber**, BAM Federal Inst. for Materials Res. and Testing, Germany

Large Scale Fibre Optic Bragg-Grating Based Ocean Bottom Seismic Cable System for Permanent Reservoir Monitoring, **Jon Thomas Kringlebotn**, Optoplan AS, UK

Gemini Fiber for Sensing, **Walter Margulis**, Acreo, Sweden

Ultra-low Noise Fiber Lasers for Optical Fiber Sensor Systems, **Jens Engholm Pedersen, Poul Varming, Christian Vestergaard Poulsen**, NKT Photonics, Denmark

Design of Microstructured Waveguide Devices for Applications in Optical Sensing, **Graham Town**, Macquarie Univ., Australia

In Vivo Deep Brain Imaging Using Multiphoton Microscopy, **Chris Xu**, Cornell Univ., USA

Please check the website for updates as speaker names will continue to be added as they are confirmed.

GENERAL CHAIR

Karsten Rottwitt, Danmarks Tekniske Univ., Denmark

PROGRAM CHAIRS

Ishwar Aggarwal, NRL, USA

Mario Ferreira, Univ. of Aveiro, Portugal

Shinji Yamashita, Univ. of Tokyo, Japan

VISIT WWW.OSA.ORG/SENSORS FOR MORE INFORMATION AND TO SUBMIT YOUR PAPER.

2010 | OSA Optics & Photonics Congress

ATTEND THE ADVANCED PHOTONICS CONGRESS IN KARLSRUHE, GERMANY, JUNE 21–24, 2010

- Collocated with the **Renewable Energy** OSA Optics & Photonics Congress
- Joint sessions
- Poster sessions
- Joint plenary sessions
- **Celebrating 50 Years of the Laser Special Plenary:**
Featuring Keynote Speaker, Theodor W. Hänsch, Max Planck Inst. for Quantum Optics, Germany, 2005 Nobel Prize Laureate
- Networking, information sharing and discussion

The Advanced Photonics: OSA Optics & Photonics Congress is collocated with the Renewable Energy: OSA Optics & Photonics Congress. Combined the congress features 7 meetings with a broad range of topics including:

- FTTx architectures
- Grating Properties
- Nonlinear Effects in Fibers
- Slow and Fast Light in Sensors
- Solid-State Lighting Systems

Registered attendees of any of the featured meetings will enjoy more opportunities for cross-networking and information sharing. One registration fee will allow access to any session held at both the Advanced Photonics and Renewable Energy congresses.

JOIN OSA TODAY!

By signing up to become an official OSA member, among many other valuable benefits, you'll be able to register for OSA's Fall Congress at the member discount price – that's a \$160 difference! To become an OSA member, visit www.osa.org/membership.

OSA FOUNDATION STUDENT TRAVEL GRANTS

The OSA Foundation is pleased to offer travel grants of up to \$1,000 USD to students from developing countries who are attending Advanced Photonics 2010.

Please visit www.osa.org/aboutosa/grants/foundationgrant/ to find out more information about how to apply for a grant. All applications for Advanced Photonics must be received by April 15, 2010.