



## **Prestigious Major Prizes in Quantum Electronics and Optics announced by the European Physical Society**

MULHOUSE, FRANCE [21 APRIL 2011] – The European Physical Society is delighted to announce the 2011 winners of its two most prestigious prizes in Quantum Electronics and Optics. These prizes are awarded only once every two years, and recognize the very highest level of achievements in applied and fundamental research in optical physics. The awards will be presented in a special plenary ceremony on Tuesday May 24th 2011 during the Conference on Lasers and Electro-Optics (CLEO) Europe, held during the World of Photonics Congress in Munich, Germany.

### **2011 Prize for Applied Aspects of Quantum Electronics and Optics: Ursula Keller**

The 2011 Prize for Applied Aspects of Quantum Electronics and Optics is awarded to Professor Ursula Keller, Professor in the Physics Department, ETH Zurich, Switzerland. The Prize is awarded to Professor Keller for “seminal contributions to ultrafast solid-state lasers, telecommunications, metrology, and attosecond science”.

Ursula Keller joined ETH as professor of physics in 1993. She received the Ph.D. in Applied Physics from Stanford University in 1989 and the Physics "Diplom" from ETH in 1984. She was a Member of Technical Staff at AT&T Bell Laboratories in New Jersey, USA, from 1989 to 1993. Her research interests are exploring and pushing the frontiers in ultrafast science and technology: ultrafast solid-state and semiconductor lasers, frequency comb generation and stabilization, attosecond pulse generation and science using high harmonic generation. She received the OSA Fraunhofer/Burley Prize in 2008, the Philip Morris Research Award in 2005, the first-place award of the Berthold Leibinger Innovation Prize in 2004, and the Carl Zeiss Research Award in 1998. She is an OSA Fellow and an elected foreign member of the Royal Swedish Academy of Sciences and the German Academy Leopoldina.

### **2011 Prize for Fundamental Aspects of Quantum Electronics and Optics: Immanuel Bloch**

The 2011 Prize for Fundamental Aspects of Quantum Electronics and Optics is awarded to Professor Immanuel Bloch, scientific director at the Max-Planck-Institute of Quantum Optics, Garching and professor for experimental physics at the Ludwig-Maximilians University (LMU) in Munich, Germany. The prize is awarded to Professor Bloch for “pioneering work on exploring quantum many-body systems using ultracold quantum gases for quantum simulation and quantum information applications.”

Immanuel Bloch obtained his PhD in physics in 2000 from LMU and continued research as a junior group leader in the experimental team of Prof. Theodor Hänsch. From 2003-2009 he was full professor at the University of Mainz. In 2009 he returned to Munich, where his research focus lies on the investigation of quantum many-body systems, quantum simulations and quantum information processing. Immanuel Bloch has previously received the Gottfried-Wilhelm-Leibniz prize of the German Science Foundation (DFG) in 2005, the German National Merit Medal in 2005, the international commission of optics prize in 2005 and the Philip Morris Research prize in 2007.

### **Background Information on EPS-QEOD**

The European Physical Society provides an international forum for physicists and also acts as a federation of national physical societies. Founded in 1968, the EPS plays a leading role in both scientific and policy activities within the community of European physicists. The Quantum Electronics and Optics Division (QEOD) of the EPS acts as a focal point for European research in optics and photonics through its wide range of strategic activities, sponsorship and conference organisation. In addition to the major awards described above, it also awards Young Researcher (Fresnel) and PhD Student Prizes. See [qeod.epsdivisions.org](http://qeod.epsdivisions.org)

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#### **Web page and List of Previous Prize Winners**

<http://qeod.epsdivisions.org/qeod-prizes/>

<http://qeod.epsdivisions.org/qeod-prizes/the-eps-quantum-electronics-prize/the-eps-quantum-electronics-prize>

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