

## **PRESS RELEASE**

### **2013 SAOT Young Researcher Award in Optical Technologies bestowed upon Professor Jonathan Home, ETH Zurich, Switzerland - Prof. David Wineland, 2012 Nobel Laureate in Physics, presents the lecture at the academic ceremony -**

In 2013, for the sixth time, the Erlangen Graduate School in Advanced Optical Technologies (SAOT) of the Friedrich-Alexander-Universität Erlangen-Nürnberg will bestow the Young Researcher Award in Optical Technologies (YRA) upon a young scientist with an excellent proven record in optics and optical technologies. The prize money is 100,000 Euro.

The 2013 designated laureate is Professor Jonathan Home, Assistant Professor of Quantum Optics and Photonics at the Department of Physics at the Swiss Federal Institute of Technology (ETH) Zurich in Switzerland. The award will be conferred on him in recognition of his outstanding contributions in ion trap quantum information processing. His work will help opening up new avenues for characterizing loss of quantum coherence and provide new techniques for the realization of quantum information processing and quantum state engineering. Quantum information processors are predicted to enable computation or simulation of problems which are out of the reach by any classical computer.

As award winner Prof. Home will have the formal status of a guest professor during his visits at the SAOT in Erlangen when he spends the prize money in close collaborations with SAOT scientists. For the next few years he is expected to set up a small working group in Erlangen in collaboration with scientists of the Erlangen Max Planck Institute for the Science of Light using novel photonic crystal fiber structures to realize new types of ion trap.

During the academic award ceremony on June 28<sup>th</sup>, 2013, the lecture of the ceremony will be presented by the 2012 Physics Nobel Laureate Professor David J. Wineland from the National Institute of Standards and Technology (NIST) and from the University of Colorado at Boulder in the United States of America. The title of the lecture is: "Superposition, Entanglement, and Raising Schroedinger's Cat"

The Young Researcher Award underlines strongly the SAOT's objective to improve interdisciplinary research and education in the development and application of optics and optical technologies, in particular at the interfaces between natural sciences, engineering and medicine in the six SAOT research areas: optical metrology, optical material processing, optics in medicine, optical material and systems, optics in communication and information technologies and computational optics. The Young Researcher Award in Optical Technologies strengthens the international SAOT network of distinguished experts and provides a platform for the interdisciplinary exchange of innovative scientific ideas.