MAX PLANCK INSTITUTE OF QUANTUM OPTICS



Garching, May 2010

Press Release

Dr. Albert Schließer receives Otto Hahn Medal of the Max Planck Society



Dr. Albert Schließer, a young research scientist at the Max Planck Institute of Quantum Optics in Garching (near Munich), has been awarded the Otto Hahn Medal 2009. Since 1978 this award is annually given to up to 40 young scientists by the Max Planck Society. It is supposed to encourage highly talented people to pursue a professional career at universities and institutes in the field of fundamental research. Dr. Schließer receives this award "for his contributions to the investigation of the effects of light pressure

in optical microresonators, in particular for the first demonstration of optomechanical laser-cooling of mechanical oscillators".

Albert Schließer, born 1979, began his education in physics at the Technische Universität München and the University of Constance. His diploma thesis was carried out at the Max Planck Institute of Biochemistry in Martinsried. In 2006 he began to work in the independent Max Planck Research Group *Laboratory of Photonics and Quantum Measurements* of Professor Tobias Kippenberg (now at the Ecole Polytechnique Fédérale de Lausanne), which is affiliated with the Laser Spectroscopy Division of Prof. Theodor W. Hänsch. He completed his thesis under Prof. Hänsch in October 2009 "summa cum laude".

As a part of his thesis research, Albert Schließer was able to demonstrate that micro-mechanical oscillators can be cooled by the pressure of light. Furthermore, he succeeded in approaching the quantum mechanical ground state of microresonators by applying this cooling method. Such experiments could provide insights into the question at which point the motion of 'large' objects is determined by the laws of quantum mechanics, as well as the role of quantum noise in coupled optical-mechanical systems. The Otto Hahn Medal will be given to Dr. Schließer on the occasion of the main assembly of the Max Planck Society in Hanover on June 16, 2010. *Olivia Meyer-Streng*

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