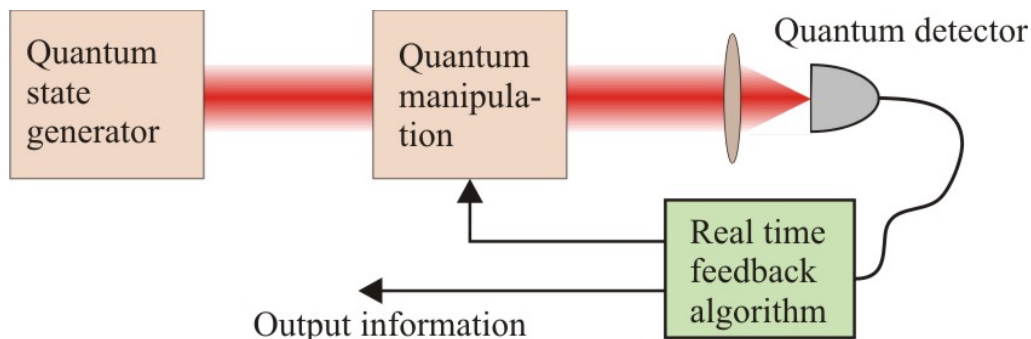




International PhD position in Quantum Optics

A three-year PhD scholarship within the field of quantum optics is available at the Department of Physics at the Technical University of Denmark. The topic of the project is the investigation of optical quantum feedback systems for applications in optical bio-sensing and quantum information processing. The project is a part of an international collaboration with the Max-Planck research center on Optics, Photonics and Information in Erlangen (Germany). The position will include a one-year research stay in Erlangen.

The objective of the research project is to investigate quantum feedback control systems and explore their applications in bio-optical sensing and quantum information processing. By using quantum feedback control, ultra precise measurements at the fundamental quantum limit of an optical field can be executed. Such measurements have profound applications in the field of biological sensing where extremely small concentrations of biological active substances are to be detected and in quantum information processing where fragile quantum information is to be measured at the ultimate quantum limits.



Candidates should have a master degree within optics/photonics, physics or engineering or a similar degree with an equivalent academic level. A background in quantum optics is an advantage. The candidate should have good communication skills in English – written and spoken, and the ability to work independently in a dynamical environment.

The PhD project is financed by the BIOP graduate school, the Max-Planck Research center in Erlangen and the Technical University of Denmark.

For further information please contact Ulrik Andersen, e-mail: ulrik.andersen@fysik.dtu.dk. Information about the *application requirements* can be found at http://www.dtu.dk/Om_DTU/ledige_stillinger.aspx.

Deadline for application: September 17, 2007.