

University of Sussex
School of Mathematical and Physical Sciences
Department of Physics and Astronomy
Research Fellow in Experimental Quantum Optics (Fixed Term for 12 months
with the possibility for extension, Full Time)

Salary range: starting at £30,728 and rising to £33,562 per annum. It is normal to appoint at the first point of the salary scale. Salary capped at £33,562 due to funding.

Expected start date: 1 September 2014 or as soon as possible thereafter
Applications are invited for a 12 months full-time postdoctoral position in Experimental Quantum Optics at the University of Sussex. Applicants should have obtained a PhD in experimental quantum optics, laser- or atomic physics and be able to demonstrate working knowledge in this field. The appointment is within the framework of the EPSRC grant “Quantum Networking with Fibre-Coupled Ions” . The successful candidate will work in a team of experienced researchers directed by Dr Matthias Keller.

The goal of the project is to combine two of the most successful techniques in quantum information processing, individually trapped ions and strong-coupling cavity-QED, and use them as tools to set up a distributed quantum network. The principal challenge in the implementation of this scheme is the requirement for miniature-size traps and microscopic optical cavities to provide suitable conditions for a high-fidelity interface between ions and photons. In the project, technologies are developed to demonstrate distributed quantum information processing in a model system. This includes novel ion traps, laser sources and high-finesse optical cavities.

For further information please contact Dr Matthias Keller , phone: +44 (0) 1273 877673
Closing date: **25 July 2014**.
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