

Research Fellow in Experimental Quantum Networking

Department of Physics and Astronomy

University of Sussex - School of Mathematical and Physical Sciences

Fixed Term until 30th November 2019 with the possibility of an extension, full time

Salary range: starting at £32,548 and rising to £38,833 per annum

Expected start date: 01 July 2018 or as soon as possible thereafter

Applications are invited for a full-time postdoctoral position in Experimental Quantum Networking 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 UK 'Quantum Technology Hub Quantum Networked Quantum Information Technologies'. 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 (1273) 877673, email: M.K.Keller@sussex.ac.uk

Closing date: 8 June 2018

Please include with your completed application form a CV, at least two references and a list of relevant publications.

The University of Sussex is committed to equality of opportunity.