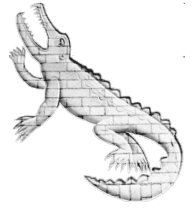




# University of Cambridge

## Cavendish Laboratory

### Atomic, Mesoscopic and Optical Physics



## Postdoctoral Research Fellowships

# Quantum-optical networks with solid-state spins and photons

Confined and isolated spins carry great promise for quantum information science as quantum bits. Optically active semiconductor quantum dot systems can provide not only the confinement, but also clean optical access to the individual spin states under study. Funded by the ERC Consolidator Award **PHOENICS**, we aim to extend the quantum optical control from single confined spins to an elementary network, where high-yield, high-fidelity entanglement is established through photonic interference. The research topics will include the realisation of efficient quantum relays and repeaters, the generation of photonic cluster states, and interfacing hybrid (atomic and solid-state) nodes. The applicants should have strong interest and experience in experimental quantum optics, optical spectroscopy, atomic physics and/or confined spin systems and quantum information science. In turn, you will enjoy being an active part of a dynamic research group in the University of Cambridge and an integrated member of the Cambridge AMOP community.

**How to apply:** Applicants will be considered for **1<sup>st</sup> April 2016** starting date (negotiable). The fellowship is **fully funded** for 3 years, which will include a probationary period. Application deadline is **12<sup>th</sup> February 2016**. Employment requirements of the University of Cambridge and the Physics Department apply fully. Applications should be made online via the following link: <http://www.jobs.cam.ac.uk/job/9130/>

For further information about the group please visit:  
<http://www.amop/phy.cam.ac.uk/amop-ma>