

# Quantum nanophotonics research positions

University of Calgary

Institute for Quantum Science and Technology

National Research Council Nanotechnology Research Centre

Join researchers building technology for quantum information processing and for probing and manipulating quantum systems. Projects combine nanophotonic devices with quantum optics experiments, and include:

**Quantum transduction:** converting microwave photons to optical photons.

**Optomechanical QIP:** creating quantum memories and switches using optomechanics.

**Novel spin systems for quantum optics:** integrating newly discovered diamond spin systems into nanophotonic devices and circuits.

**Spin-optomechanics:** controlling and coupling spins using optomechanical devices.

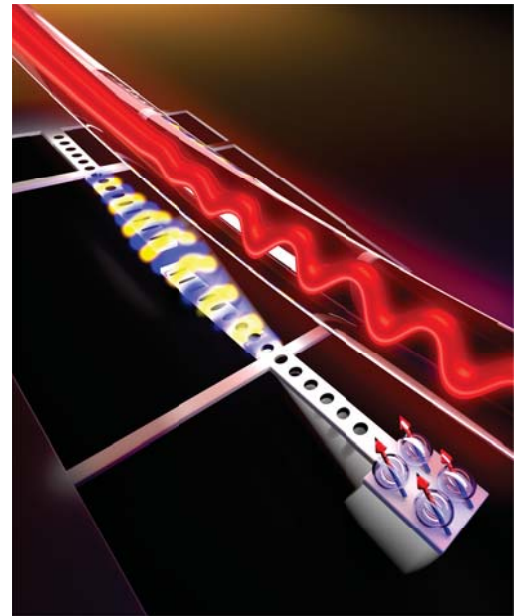
Researchers will have access to existing state of the art experimental facilities, as well as the opportunity to contribute to the setup of a major new quantum transducer and memory lab funded by the Canadian Foundation for Innovation.

## Postdoctoral scholar positions (two)

Candidates should have a background in at least one of the following: nanofabrication, spectroscopy, nanophotonic device design and/or experiment, and quantum optics experiment

## MSc and PhD positions

Research positions for creative graduate students with a physics or engineering physics background and an interest in quantum nanoscience will be available in spring 2019.



Institute for  
QUANTUM SCIENCE AND TECHNOLOGY  
at the University of Calgary

## More information

Prof. Paul Barclay  
pbarclay@ucalgary.ca  
barclaylab.ucalgary.ca