

Quantum Sensors Challenge Project

Fiber-Integrated Frequency Comb Using Phase Change Nanosstructured Metamaterials

Positions for graduate students and postdoctoral fellows

The NRC Quantum Sensors Challenge program aims to develop a disruptive generation of quantum sensors that are orders of magnitude better than sensors that exist today.

The Fiber-Integrated Frequency Comb Using Phase Change Nanosstructured Metamaterials Project is a collaboration between the NRC Metrology Research Centre and the University of Alberta. This project will develop a prototype of a robust and compact portable fiber-integrated frequency comb using novel metamaterials technology, to serve portable optical atomic clocks.

We are seeking graduate students (MSc and PhD) and postdoctoral fellows. **To apply contact Prof. Gil Porat (gporat@ualberta.ca).**

Research topics include

- Ultrafast and nonlinear optical metamaterial characterization
- Frequency comb laser modelling and development
- Laser stabilization and characterization