

Michal Bajcsy's Nano-Photonics and Quantum Optics lab at IQC

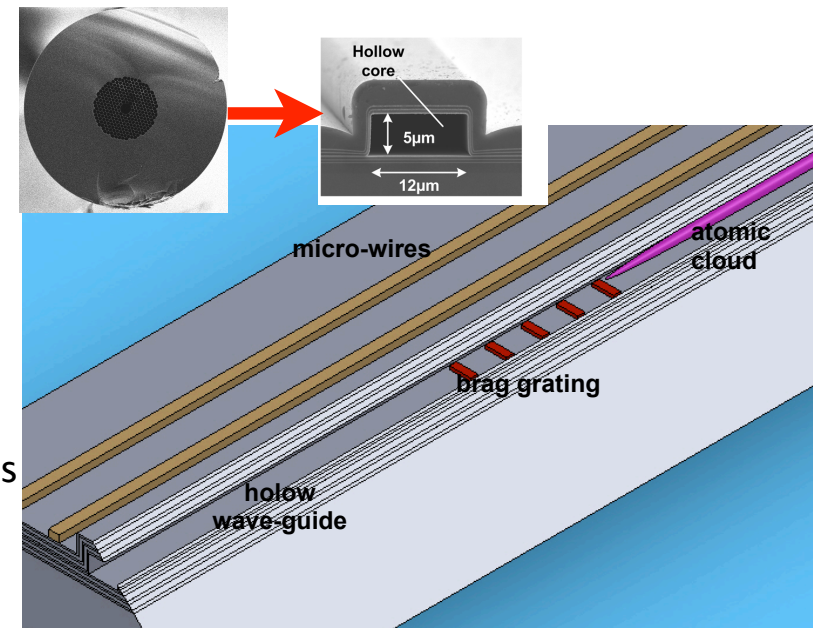
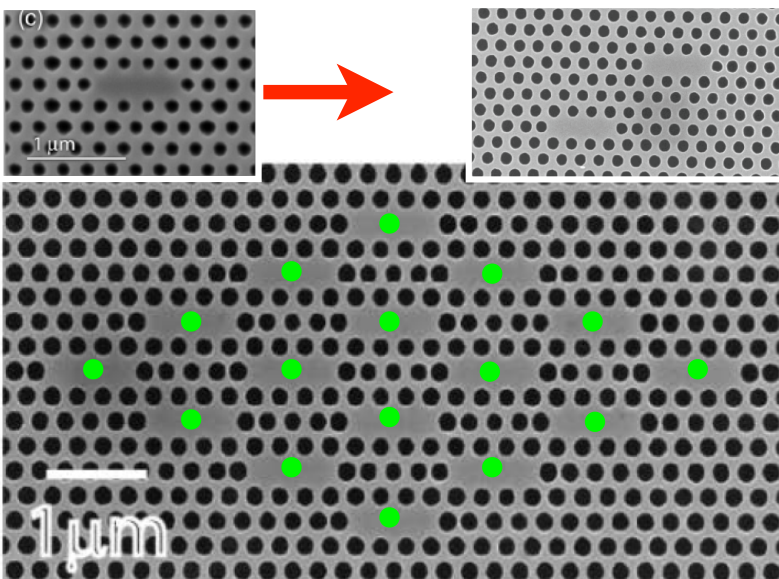
quantum emitters
+
nano-photonic structures

individual
laser-cooled atoms
+
planar photonic-crystal
cavities

laser-cooled atomic
ensembles
+
on-chip optical
waveguides

Applications to QIP:

- ✓ photon storage
- ✓ single photon phase gate
- ✓ non-destructive photon detection
- ✓ Fock-state generation
- ✓ photon-number resolving detectors
- ✓ low power all-optical switch
- ✓ all-optical transistor
- ✓ microwave to optical interface
- ✓ ultra-narrow linewidth light sources
- ✓ non-classical light sources
- ✓ quantum simulation platforms



<http://npqo.weebly.com/>