

# Department of Physics and Astronomy General Colloquium

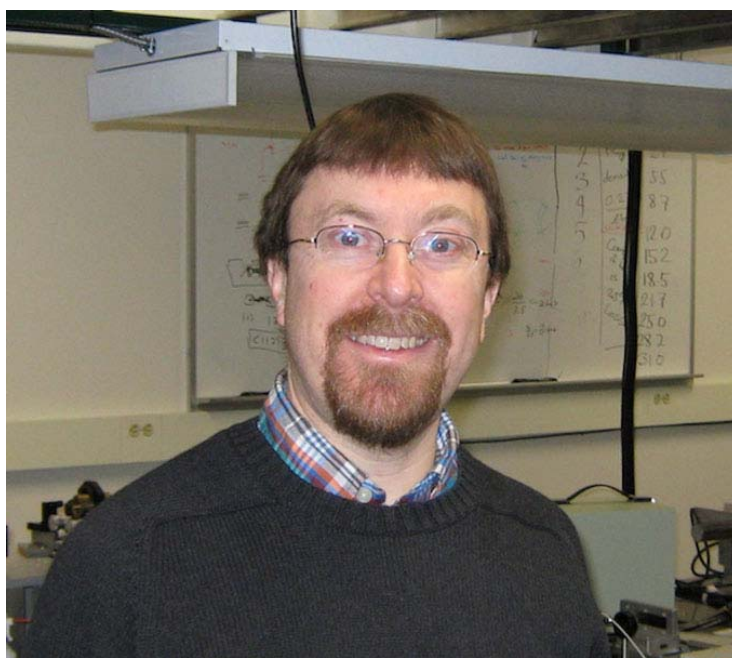
Thursday, October 25<sup>th</sup>, 2018

PHYS 203 at 3:30 pm

*(Refreshments served at 3:00 pm in PHYS 242)*

**Professor David Snoke**

University of Pittsburgh



## **Superfluids of light**

It is possible to engineer the properties of photons in an optical medium to have an effective mass and repulsive interactions, so that they act like a gas of atoms. These "renormalized photons" are called polaritons. In the past ten years, several experiments have demonstrated many of the canonical effects of Bose-Einstein condensation and superfluidity of polaritons. In this talk I will review some of this past work and present recent results, including oscillation of a polariton condensate in a one-dimensional ring trap, and polariton drag, in which electrons directly push photons in a wire.