1172-35-295   **John Schotland*** (`john.schotland@yale.edu`), 7 Bushnell Lane, Madison, CT 06443. *Nonlocal PDEs in Quantum Optics.*

Quantum optics, the quantum theory of light-matter interactions, is primarily concerned with systems consisting of a small number of atoms. In this talk I will describe recent work on many-body problem in quantum optics, focusing on the case of random media. In this setting, there is a close relation to kinetic equations for PDEs with random coefficients. (Received August 30, 2021)