1115-60-205 **Peter Roland Kramer*** (kramep@rpi.edu), **Yuzhou Qian** and **Patrick Underhill**.

Fluctuation Models for Suspensions of Swimming Microorganisms.

The collective dynamics of swimming microorganisms ("microswimmers") such as bacteria and algal cells have been of considerable recent interest, both as paradigms of collective patterns arising from individual autonomous agents and for their relevance to technological issues such as biofilm formation and power sources for microdevices. We will discuss some recent efforts to characterize stochastic fluctuations in a continuum "mean field" partial differential equation framework for the effective microswimmer dynamics in a suspension. (Received September 18, 2015)