1063-70-274Alethea Barbaro\* (alethea@math.ucla.edu), UCLA Mathematics Department, Los Angeles,<br/>CA 90095. Limiting PDEs for flocking models. Preliminary report.

Interacting particle models have been shown to be effective at modeling the collective dynamics of large groups of social animals and insects. However, simulation of such systems becomes computationally intractable as the number of particles increases. Here, we formally derive a limiting PDE for one model of socially interacting particles. (Received August 17, 2010)