

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Birds on a wire: empirical studies of flocking dynamics in linear aggregates ELLIOTT SCHWARTZ, ANDREW FULTON, LEE ROSENTHAL, SUZANNE AMADOR KANE, Physics Department, Haverford College, Haverford PA 19041 — The dynamics of avian flocking is difficult to study because of the transient, highly mobile and unpredictable nature of bird flocks. However, birds often form clusters when perched on wires and fences, offering a stable platform for studying the formation, internal structure and dynamics of these approximately one-dimensional flocks. Previous studies have examined the distribution of the distances between birds perched on wires, but not the time-dependence of this behavior. We present results from a video study of cliff swallows (*Petrochelidon pyrrhonota*) perched on power lines in Sierra Valley, California. Phenomena studied include how the interbird distance distribution varies as a function of time, what factors influence the addition of further birds to an existing cluster, how the distribution evolves in response to perturbations, and typical timescales for the observed behaviors.

Suzanne Amador Kane
Physics Department, Haverford College, Haverford PA 19041

Date submitted: 07 Nov 2013

Electronic form version 1.4