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Complexity and Fly Swarms GRANT CATES, JOELLE MURRAY,

Linfield College — Complexity is the study of phenomena that emerge from a collection of interacting objects and arises in many systems throughout physics, biology, finance, economics and more. Certain kinds of complex systems can be described by self-organized criticality (SOC). An SOC system is one that is internally driven towards some critical state. Recent experimental work suggests scaling behavior of fly swarms—one of the hallmarks of an SOC system. Our goal is to look for SOC behavior in computational models of fly swarms.

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