Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

**Self-organized criticality of protein folding simulations using AMBER parameters** YURA SIM[1], JOELLE MURRAY[2], Linfield College — Self-organized criticality is a framework that can be used to describe many natural processes, ranging from avalanches to forest fires. These processes exhibit power-law characteristics and scale invariance. Self-organized critical systems have yet to be applied to protein folding and its identification as such may be useful to understanding protein behavior. A dynamical simulation was constructed using AMBER energy parameters and evidence of self-organized criticality was investigated. Furthermore, the features of self-organized criticality were used to explore the development of protein structures within the simulation.

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Date submitted: 15 Nov 2013 Electronic form version 1.4