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**Protein Folding and Self-Organized Criticality** ARUN BAJRACHARYA, JOELLE MURRAY, Linfield College — Proteins are known to fold into tertiary structures that determine their functionality in living organisms. However, the complex dynamics of protein folding and the way they consistently fold into the same structures is not fully understood. Self-organized criticality (SOC) has provided a framework for understanding complex systems in various systems (earthquakes, forest fires, financial markets, and epidemics) through scale invariance and the associated power law behavior. In this research, we use a simple hydrophobic-polar lattice-bound computational model to investigate self-organized criticality as a possible mechanism for generating complexity in protein folding.

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