Entropic characterization of complex systems becoming out of control

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Hierarchically organized structures are ubiquitous in complex systems. An entropy-based methodology incorporates this fact and provides a natural way to classify the system components according to their degree of uncontrollability [1]. Self-similar properties of the entropy function developed in this theory may suggest potential applications in a non-neglible part of the whole universe of complex systems. Some real-world applications of this general theory will be overviewed here (urban sprawl [2], deforestation [3], public transport strikes [4]) as well as other applications in classical models found in Sociophysics (Sznajd's [5,6], Schelling's [7], Axelrod's, etc.)

Referencias

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