

Contagion Processes in Complex Systems

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Recent years have witnessed the development of data driven models of contagion processes rooted in the combination of largescale data mining techniques, computational approaches and mathematical modeling. Although these models are increasingly used to support public-health decisions they are often under debate by only considering their value as forecasting tools. Here I will discuss, by using specific modeling examples, how computational models can be used in real time to provide situational awareness, intervention planning and projections, and the identification of factors that fundamentally influence the course of contagion processes.