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A Computational Model and Convergence Theorem for Rumor Dissemination in Social Networks

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The spread of rumors, which are known as unverified statements of uncertain origin, may threaten the society and its controlling, is important for national security councils of countries. If it would be possible to identify factors affecting spreading a rumor (such as agents' desires, trust network, etc.) then, this could be used to slow down or stop its spreading. Therefore, a computational model that includes rumor features, and the way rumor is spread among society's members, based on their desires, is needed. Our research is focused on the relation between the homogeneity of the society and rumor convergence in it. Our result shows that the homogeneity of the society is a necessary condition for convergence of the spread rumor.

Keywords: Information Propagation, Social Simulation, Agent-based Modeling.

This talk is based on a joint work with Rasoul Ramezani.