

NETWORK AND BELIEF FORMATION

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Abstract

The paper discusses network formation, in a setting where players can minimize the uncertainty about possible states of the world in order to play an optimal strategy according to their beliefs. They do so by connecting to other individuals who then share their information with them. The study is done considering social networks, according to the idea that these are formed in order to minimize the uncertainty individuals have to face. The paper considers the existence of noise in the transmission of information within the network, and analyzes which kind of networks emerge under different attitudes towards uncertainty of individuals. The basic criterion used to analyze formation is pairwise stability of the network. Moreover, it characterizes some criteria to analyze how they relate to the real distribution of the event. This modeling approach will hopefully shed some light on why and how individuals decide to establish some link between them in a social sphere, why societies have a certain architecture according to the attitude towards uncertainty of the individuals that conform it, and why different societies have different beliefs.