

Abstract

The voluminous literature on diffusion of new products only deals with social networks where everyone is connected to everyone else (except for a few studies, which are mostly numerical). In this talk, I will discuss how the diffusion of new products is affected by the introduction of a network structure. This effect of the network structure is very different from that in other models for spreading in networks. For example, a small-world structure has a large effect on the spread of epidemics, but a negligible effect on the diffusion of new products. Percolation of diseases has a critical threshold for spreading, percolation of new products does not. A motivation application throughout the talk will be the diffusion of residential solar systems, which mainly spread through peers effect by geographical neighbors