



# Structural and Dynamical Aspects of Networks

Both the structure and function of many complex systems can be described in terms of networks consisting of nodes and links between them. The nodes can be either individual components or sub-systems and the strength of the connections between these can be fixed or variable. In recent years, there has been a great deal of interest in structural aspects of networks and the exploration of dynamics on these topologies is now rapidly expanding. The talk will focus on our recent work on a statistical mechanism for generating networks with a wide variety of degree distributions and other attributes seen in real-world network data. The issue of vulnerability of complex networks to targeted attacks will then be considered as well some preliminary results on spatio-temporal dynamics and resulting patterns on networks.

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October 25, 2011 (Tuesday) at 3:30pm (Refreshments at 3:15pm)

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