The Mathematics and Statistics Club at Georgia State University presents...
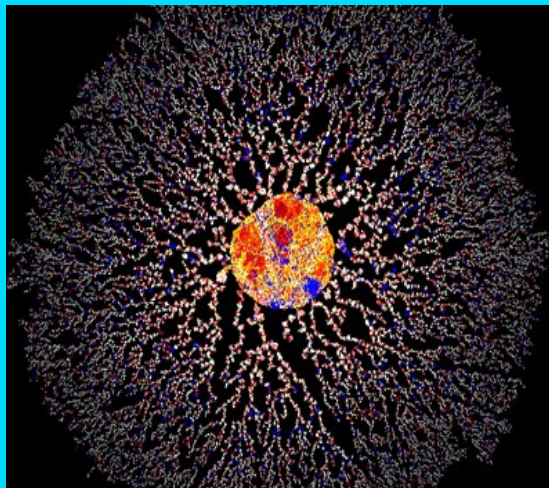
Inference and Analysis of Biological Networks

a lunchtime talk by

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Monday February 13th 2012, 12pm-1pm
796 College of Education

Abstract

Biological processes are realized via networks with the collaborative function of proteins (or genes). Two areas of networks will be covered.

1. Inference of networks from expression data. Similarity or correlation in expression levels contains information about the possible relationships between proteins (or genes). Difficulties and methods of inferring networks from expression data will be described.

2. Analysis of expression data with incorporation of networks. Huge number of variables (e.g., genes in microarray data, SNPs in genome-wide association studies) brings the difficulty of extracting useful feature from noises. Incorporating networks (pathways) enriches the information in genes and helps reducing the false positive rate. How to summarize the information in pathways to improve prediction will be discussed.

As always, we will have free pizza and soda!