**ABSTRACT:**

Although the network clustering literature has focused on undirected networks, many networks are directed. For example, communication networks contain asymmetric relationships, representing the flow of information from one person to another. This talk will (1) demonstrate that co-clustering, instead of clustering, is more natural for many directed graphs, (2) propose a spectral algorithm and a statistical model for co-clustering, (3) show some asymptotic results, and (4) present a preliminary analysis of a citation network from Arxiv. Of key interest is the discovery of bottleneck nodes that transmit information between clusters of papers. This is joint work with Professor Bin Yu at UC Berkeley.

**TITLE:**

Co-clustering for Directed Graphs: An Algorithm, a Model, and Some Asymptotics

**SPEAKER:**

Professor Karl Rohe
Department of Statistics
UW-Madison

**TIME & PLACE:**

Wednesday, April 18, 2012
Room 140 Bardeen
4:00-5:00p

Cookies & Coffee @ 3:30 in Rm 1210 MSC