



**Interdisciplinary Workshop for Undergraduate Students
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Lecture: *Communities in Networks*

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Abstract:

Networks are all around us, from online social networks to business relationships to family and friends. The patterns in these connections control the way that information, ideas, and diseases spread across a population. In many cases, these processes are strongly influenced by the large-scale organization of nodes into groups. As such, the algorithmic detection of tightly-connected groups of nodes, known as communities, has become a prominent method for studying various networks across different disciplines. Examples discussed in this talk include online social networks, political data, and features of pathogenic E.coli. No previous knowledge about networks will be assumed.