



The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University



Ralucca Gera

Naval Postgraduate School

*Connecting Yesterday to Tomorrow:
Extending Graph Theory to Complex Networks*

MARCH 5, 2014, MH320

Abstract: This presentation will briefly introduce some concepts and applications of graph theory, followed by natural extensions to the foundation of today's (and tomorrow's) world: complex networks. We will explore one particular complex network, the Internet, and share our recently obtained results comparing snapshots of Internet topology. For our research, we modeled the Internet by a graph, with router interfaces represented as vertices, and the connections between these interfaces obtained through traceroutes are represented by the edges. The modeling of the internet by a graph will be described, but the focus of the talk is on the study of the graphs.

Background: Discrete math (Math 42).

About the speaker: Ralucca Gera got her Ph.D. in graph theory from Western Michigan University, and she has been at the Naval Postgraduate School since. Most of her research has been in domination, independence and colorings in graphs, and recently she has been extending her work to complex networks (like the Internet).

SNACKS IN MH331B AT 2:30 PM

TALKS START AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>