MAA SHORT COURSE

A SAMPLER *of* APPLICATIONS *of* GRAPH THEORY

JOINT MATHEMATICS MEETINGS

SAN DIEGO
JANUARY 6-9, 2002

at the
Joint Mathematics Meetings
San Diego
January 6–9, 2002

ORGANIZER: **Fred Roberts,** *Rutgers University*

The short course will survey a variety of applications of graph theory. Graph theory is an old subject which has found a vast number of exciting applications in recent years. The speakers will introduce the graph-theoretical topics needed, describe both historical and current applications, and discuss current research topics in graph theory related to the applications. Many of the topics to be covered will be amenable to discussion in the classroom as well as making for good research topics for both researchers and students. No prior knowledge of graph theory will be required.

PROGRAM: **OVERVIEW AND BACKGROUND**
Fred Roberts, *Rutgers University*

APPLICATIONS TO NETWORK VISUALIZATION
Nate Dean, *Rice University*

THE GRAPH STRUCTURE OF THE WORLD WIDE WEB
Sridhar Rajagopalan, *IBM Almaden*

APPLICATIONS TO MOLECULAR BIOLOGY
R. Ravi, *Carnegie Mellon University*

APPLICATIONS TO FACILITY LOCATION
K. Brooks Reid, *Cal State University, San Marcos*

SOCIAL NETWORKS
Fred Roberts, *Rutgers University*

APPLICATIONS TO STATISTICAL PHYSICS
Peter Winkler, *Bell Labs*

THE MATHEMATICAL ASSOCIATION · OF AMERICA ·