



# Distinguished Seminar ACM and Comp. Sci.



## Challenges in Simulating Large Computer Networks

**Dr. David Nicol**

**Univ. of Illinois at Urbana Champaign**

**Oct 11<sup>th</sup> Tuesday, 12:30 to 1:30pm**

**Carver-Turner Room (Havener Center)**

**Abstract** - Discrete-event simulation is commonly used to study the behavior of communication networks. However, devising meaningful simulation models for large-scale systems is difficult, and is a topic of considerable concern and debate. Problems include the transient nature of network behavior, statistical problems in making meaningful quantifications of estimated metrics, the tremendous amount of computational work often associated with network simulations, and differences in time-scale between inter-related activities. This talk describes some of these problems, and research efforts underway to address them.

**Brief Bio** - David M. Nicol is Professor of Electrical and Computer Engineering at the University of Illinois, Urbana-Champaign. His research interests encompass modeling and simulation, high performance computing, and security. He was elected Fellow of the IEEE, Fellow of the ACM, and was the inaugural recipient of the ACM SIGSIM Distinguished Contributions Award.