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

Peter J. Haas

IBM Almaden Research Center

Exploring Complex Simulation Models

January 29, 2014, MH320

Abstract: Massive simulation models are becoming prevalent both in e-science and in guiding investment, planning, and policy decisions. Such models generate vast amounts of data and have huge numbers of parameters, especially in settings like IBM's Splash platform for creating composite simulation models of "systems of systems". We discuss methods for extracting insights from these models, including experimental design to control the amount of simulated data, metamodeling for real-time model exploration, sensitivity analysis to identify key parameters, and stochastic optimization methods for understanding model response.

(This talk is Part 2 of our CAMCOS double feature.)

Background: No particular background is necessary.

About the speaker: Peter J. Haas is a Research Staff Member at the IBM Almaden Research Center and a Consulting Professor in Management Science and Engineering at Stanford University. His research applies probability and statistics to the modeling, simulation, and control of complex stochastic systems, and to the management and exploration of large-scale uncertain data.

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/`