

Arizona State University
Fulton School of Engineering
Department of Industrial Engineering
FALL 05-SPRING 06 SEMINAR SERIES

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Title: **Controlled Screening for Simulation Experiments**
Date: **September 7, 2005 (Wed)**
Time: **11:00 am**
Place: **Goldwater Center GWC 510**

Abstract:

Experiments whose purpose is to identify the important factors from a large number of potential factors are called factor screening experiments. Simulation experiments often involve a large number of factors and also highly unequal variance. These conditions can cause many traditional factor screening methods to make substantial errors in identifying important factors. I will discuss a few methods for factor screening that provide control of Type I error (declaring a factor important when it is not) and Type II error (declaring a factor unimportant when it is important).

Bio:

Dr. Bruce E. Ankenman is an Associate Professor in the Department of Industrial Engineering and Management Sciences at the McCormick School of Engineering at Northwestern University. His current research interests include response surface methodology, design of experiments, robust design, experiments involving variance components and dispersion effects, and design for simulation experiments. He is a past chair of the Quality Statistics and Reliability Section of INFORMS, is an Associate Editor for *Naval Research Logistics* and is a Department Editor for *IIE Transactions: Quality and Reliability Engineering*.