

TUTORIAL ON STATISTICAL ANALYSIS AND EXPERIMENTAL  
DESIGN IN DISCRETE EVENT DIGITAL SIMULATION EXPERIMENTS

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This tutorial reviews topics pertinent to the evaluation of results of discrete event digital simulation experiments and to the design of such experiments. The presentation includes:

1. alternative methods of estimating the variance of the sample mean of a process of interest
2. computation of rough confidence intervals for the mean that acknowledge use of sample variance of sample mean in place of true variance of the sample mean
3. bias due to initial conditions
4. "rough" correlogram and spectrum estimation
5. variance reduction as applied to experimental replication and the comparison of experimental results