



Operations Research Seminar

Using Multiple Computer Models and Multiple Data Sources Simultaneously to Infer Calibration Parameters

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Thursday, May 7, 2009
15:00-16:00 in GL-115

Refreshment begins at 14:45 in GL-239

With the proliferation of mathematical models and numerical methods for their solution, we are often faced with a plethora of computer models that can be used to predict the same outcomes. While these models have common engineering inputs, their different physics or biological simplifications often lead to model-specific calibration parameters. In addition, some applications allow multiple data sources, allowing calibration of subsets of the common parameters in one or more of the computational models. This talk will describe methodology that uses simultaneously the outputs from all available computer models and data sources to calibrate unknown model parameters and to provide ensemble predictions of the code output. An example will be given to illustrate the proposed methods.

Joint work with Max Morris, Thomas J. Santner, and Vincent P. Chiravalle
