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Designing Experiments for Inverse Models

Many business process and engineering design scenarios are driven by an underlying inverse problem. Rather than iteratively exercise a computationally expensive system model to find a suitable design (i.e., match a target performance vector), one might instead design an experiment and conduct off-line system model simulations to fit an inverse approximation, then use the approximation to instantaneously indicate designs meeting multivariate performance targets. This talk examines issues in defining optimal designs for fitting such inverse approximations.

Classification

Mainly methodology

Special/ Invited session

Keywords

Inverse Models, Metamodels, Surrogate Models

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