

ADDITIONAL REFERENCES

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I begin by congratulating the authors, Professors Rao and Wu, on this very illuminating and scholarly piece of work which will inspire future researchers in this area. They have done an enormous job of which we are the beneficiaries.

Considerable attention has been given in this paper on the important problem of selecting an appropriate sub-model starting from the linear model (2.1). I, therefore, find it relevant to briefly discuss some related issues in design of experiments. The discussion will be focussed primarily on discrete designs. Incidentally, experimental design problems under model uncertainty have been of substantial interest in recent years (Dey and Mukerjee, 1999; Wu and Hamada, 2000).

To motivate the ideas, consider the setup of a 2^n factorial experiment, a situation where there are n factors each at two levels. Suppose interest lies in identifying the active factors, i.e., the ones with nonzero main effects, under the absence of all interactions. A *factor screening experiment* is one which can achieve this. Interpreting the factors as regressors, the problem here is the same as that initiated by (2.1) and (2.2). The model (2.1) now consists of the general mean and the main effects of the two-level factors, each main effect being represented by a single parameter. Clearly, then at least $n + 1$ observations are needed to examine (2.1) and all possible sub-models thereof.