COMPUTATIONAL STATISTICS AND DATA ANALYSIS

CALL FOR PAPERS

Special Issue on

ALGORITHMS FOR DESIGN OF EXPERIMENTS

`http://www.elsevier.com/locate/csda`

We are inviting submissions for the special issue of Computational Statistics and Data Analysis that describes or compares algorithms for design of experiments.

Many modern experiments are too large or complex to enable standard off-the-shelf designs to be used. There is therefore increasing interest in algorithms that use computing power to find designs that would be too difficult to construct in an *ad hoc* fashion. One of the great benefits of many algorithmic methods is that they are very flexible in the design parameters they allow, e.g. mixed numbers of levels, irregularly shaped regions of experimentation or multiple strata. Algorithms may use combinatorial construction methods, or algebraic ideas to allow otherwise unfeasible exhaustive searches, or continuous optimization for approximate designs, or discrete optimization heuristics. The latter include many types of deterministic algorithms, though there has been increasing interest in algorithms with at least some stochastic component. This special issue aims to explore the diversity of the algorithms, and the types of design for which they are used.

Key topics are:

- Complex blocking structures
- Design for generalized / hierarchical linear and nonlinear mixed models
- Experiments with mixtures
- Fractional factorial designs
- Multi-tiered experiments
- Nonlinear design
- Response surface methodology
- Split-plot and multi-stratum designs
- Supersaturated designs

The papers should have a computational statistics or advanced data analytic component in order to be considered for publication. Authors who are uncertain about the suitability of their papers should contact the special issue editors. All submissions must contain original unpublished work not being considered for publication elsewhere. Submissions will be refereed according to standard procedures for Computational Statistics and Data Analysis. Information about the journal can be found at http://www.elsevier.com/locate/csda.

The deadline for submissions is **30 June 2012**. However, papers can be submitted at any time; and, when they have been received, they will enter the editorial system immediately.

Papers for the special issue should be submitted directly to the Elsevier Electronic Submission tool EES: http://ees.elsevier.com/csda In EES please ensure that you select the special issue on *Algorithms for Design of Experiments* and the Co-Editor responsible for the special issues.

The special issue editors:

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