CALL FOR PAPERS

Special Issue on

DESIGN OF EXPERIMENTS

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We are inviting submissions for the special issue of Computational Statistics and Data Analysis that will present new advances in computational methods of designing experiments.

Experimental research is essential in many areas of science, e.g. agriculture, biology, chemistry, engineering, medicine and physics. Its efficiency and success depends on the way data are collected and analysed. Statistics plays an important part in such studies. The selection or construction of suitable experimental designs contributes substantially to achieving the necessary validity and accuracy of the experimental results, at a minimum cost. There is therefore increasing interest in computer algorithms finding 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 algebraic ideas or combinatorial construction methods to allow otherwise unfeasible exhaustive searches for the most informative experimental designs. This special issue aims to expand the frontiers of how computational methods can be used to develop useful experimental designs.

Key topics are:

- Adaptive designs
- Computer experiments
- Designs for compound optimality criteria
- Designs for dependent observations
- Designs for mixed models
- Experiments with mixtures
- Multi-tiered experiments

- Designs for nonlinear models
- Population designs
- Response surface methodology
- Robustness of experimental designs
- Screening experiments
- Split-plot and multi-stratum designs
- Supersaturated designs

The papers should have a novel methodological 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 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 All submissions must contain original unpublished work not being considered for publication elsewhere.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 **28th February 2016**. 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 *Design of Experiments* and a Co-Editor responsible for the special issue.

The special issue editors:

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