CALL FOR PAPERS

Discrete Applied Mathematics

Special Issue MATHEURISTICS 2010

Guest Editors:

Karl F. Doerner, University of Vienna
Pierre Hansen, HEC Montreal, Canada
Vittorio Maniezzo, University of Bologna, Italy
Stefan Voß, University of Hamburg, Germany

Submissions are solicited for a special issue of the Discrete Applied Mathematics (DAM) journal dedicated to the MATHEURISTICS 2010 workshop. Topics either have been presented at the conference or are otherwise close to the workshop themes. Submissions of contributions are welcome also from researchers who have not personally attended the workshop.

MATHEURISTICS are optimization algorithms made by the interoperation of metaheuristics and mathematical programming (MP) techniques.

Submission can relate to

- exploiting mathematical programming techniques in a (meta)heuristic framework or
- granting to mathematical programming approaches the cross-problem robustness and constrained-CPU-time effectiveness which characterize metaheuristics.

Discriminating landmark is some form of exploitation of the mathematical formulation of the problems of interest.

Topics of interest include:

- Dual information and metaheuristics
- Decompositions and lower/upper bounds in MATHEURISTIC codes
- Upper and lower bounds interacting evolutions
- Stochastic programming and heuristic search
- MATHEURISTICS for stochastic problems
- Model-based metaheuristics
- MIP solvers as search components (local branching, RINS, ...)
- Hybridizing (meta)heuristics and exact methods
- Experimental analysis and modeling of algorithms
- Real world case histories of successful MATHEURISTIC applications
Submissions can provide results on a theoretical or methodological level, or they can report on experimental applications of MATHEURISTICS techniques to standard benchmark instances or real-world cases.

Review Process

Each submitted paper will be peer-reviewed in the same manner as other submissions to a leading international journal. Quality and originality of the contribution are the major acceptance criteria for each submission. Due to the tight deadline, papers requiring a substantial revision will not be accepted for the special issue.

Submission Guidelines

The submission of your contribution should be done via the Elsevier Electronic Submission System (accessible through the DAM homepage http://ees.elsevier.com/dam/ ). The special issue is referred to as "Special Issue: MATHEURISTICS 2010" within the DAM submission system there.

Instructions for authors can be found at:  http://ees.elsevier.com/dam/

Please see Author Instructions on the site if you have not yet submitted a paper through this web-based system. Be sure to note that your work is intended for the Special Issue and to select the article type "MATHEURISTICS 2010" so that your paper is assigned to the guest editors.

The deadline for submission to this issue is set to 15 October, 2010 in order to publish the articles as quickly as possible. If needed, however, extensions of the deadline may be obtained upon request.

For further information, please contact the guest editors.

Karl Doerner (University of Vienna)  
karl.doerner@univie.ac.at  
Pierre Hansen (HEC Montréal, Canada)  
Vittorio Maniezzo (University of Bologna, Italy)  
vittorio.maniezzo@unibo.it  
Stefan Voß (University of Hamburg, Germany)  
stefan.voss@uni-hamburg.de