Call for Papers

HM 2005

Second International Workshop on Hybrid Metaheuristics

August 29–31, 2005

Universitat Politècnica de Catalunya
Barcelona, Spain

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Important Dates

Submissions Due: April 10, 2005
Notification: May 26, 2005
Final Papers Due: June 10, 2005

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Metaheuristics have received considerable interest in the fields of applied artificial intelligence and combinatorial optimization. Plenty of hard problems in a huge variety of areas, including bioinformatics, logistics, engineering, business, etc., have been tackled successfully with metaheuristic approaches. For many problems the resulting algorithms are considered to be the state-of-the-art methods.

In recent years, it has become evident that the concentration on a sole metaheuristic is rather restrictive. A skilled combination of concepts of different metaheuristics, a so called hybrid metaheuristic, can provide a more efficient behavior and a higher flexibility when dealing with real-world and large-scale problems. Also the hybridization of metaheuristics with AI/OR techniques, such as integer linear programming and constraint programming, has been proven to be very effective.

Contributions to the workshop should address the combination and comparison of different metaheuristic components and concepts. In contrast to standard research in metaheuristics, also negative results (e.g., a component shows poor performance for the majority of test instances) are of considerable importance in hybridization. Such results have often been ignored in standard metaheuristics research. Further, the above mentioned enlarged selection of parameters will attract more attention to this part of designing algorithms.

The HM 2005 workshop aims at papers that give good examples for carefully designed and well-analyzed hybrid metaheuristics. The extraction of guidelines for the general design of hybrid metaheuristics would be desirable. Researchers are explicitely encouraged to address statistical validity of their results

Topics of interest: The scope of this workshop includes but is not limited to: Novel combinations of components from different metaheuristics, hybridization of metaheuristics and AI/OR techniques, low-level hybridization, high-level hybridization, portfolio techniques, expert systems, co-operative search, taxonomy, terminology, classification of hybrid metaheuristics, co-evolution techniques, automated parameter tuning, empirical and statistical comparison, theoretical aspects of hybridization, parallelization, software libraries.

Paper submission: Researchers are invited to submit papers of not more than 12 pages. Authors are strongly encouraged to submit their papers in LaTeX. Papers must be submitted in LNCS style (see Information for LNCS Authors at www.springeronline.com). **Accepted papers will be published in the Lecture Notes in Computer Science series of Springer-Verlag.** See the conference website or contact the workshop organizers for further information.