Special Session "Matheuristics in Production and Logistics" for INCOM2009

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http://incom09.org/

Chairs:

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Scope:

Metaheuristic algorithms and frameworks, such as tabu search, genetic algorithms, VNS, etc., have become important tools for solving problems encountered in transportation, planning and scheduling manufacturing systems. These methods were in fact usually proposed in years when Mixed Integer Programming (MIP) was seldom a viable option for solving real-world problem instances, or significant sub-problems thereof. However, research on mathematical programming, and in particular on discrete optimization, has led to a state of the art where MIP solvers or mathematical programming techniques can be effective even in a heuristic context, both for finding good primal solutions or as procedures for the exact solution of sub-problems. The term "matheuristics" has emerged to distinguish this new research option.

This session aims at bringing together the researchers in the areas of production and logistics, exploiting mathematical programming techniques in a (meta)heuristic framework or working on granting to mathematical programming approaches the constrained-CPU-time effectiveness which characterizes metaheuristics.

Topics:

- Applications of matheuristics in scheduling, planning of production and distribution, transportation and location;
- Dual information and decomposition in metaheuristics;
- Hybridizing simulated annealing, tabu search and evolutionary algorithms with exact methods;
- Experimental analysis and modeling of matheuristics;
- Real world case histories of matheuristics applications in production and logistics.

Submission

Submitted papers (6 pages in IFAC double column format) will be reviewed by at least two referees. Both academic and industrial oriented communications will be considered. Accepted contributions will be published in INCOM Proceedings by Elsevier. Further submission instructions are available on the IFAC website www.ifac-control.org. Several international journals are associated with the symposium for publication of special issues.

Important dates:

November 15, 2008:	deadline for paper submission
January 6, 2009:	notification of acceptance/reject
March 15, 2009:	deadline for final paper.