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MIC 2005

THE 6TH METAHEURISTICS INTERNATIONAL CONFERENCE
AUGUST 22-26, 2005, VIENNA, AUSTRIA

PROGRAM STEERING COMMITTEE:

- :: Karl F. Doerner (University of Vienna, AT)
- :: Michel Gendreau (University of Montréal, CA)
- :: Peter Greistorfer (Karl-Franzens-University Graz, AT)
- :: Walter J. Gutjahr (University of Vienna, AT)
- :: Richard F. Hartl (Chair) (University of Vienna, AT)
- :: Marc Reimann (ETH Zürich, CH)

PROGRAM COMMITTEE:

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CALL FOR PAPERS

► **MIC2005«Vienna»** aims at bringing together researchers in several fields (Operations Research, Management Science, Computer Science, Artificial Intelligence) to present and discuss more recent advances in the theory and application of Metaheuristics, including Genetic Algorithms, Simulated Annealing, Tabu Search, Evolutionary Computation, Greedy Randomized Adaptive Search Procedures (GRASP), Scatter Search, Ant System, Cross Entropy Method, Variable Neighborhood Search, Guided Local Search, Iterated Local Search, Noising Methods, Threshold Accepting, Memetic Algorithms, Neural Networks, and other hybrid and/or variant approaches for solving hard combinatorial problems.

PROGRAM

KEYNOTE SPEAKERS:

- :: Fred **Glover** (University of Colorado) – New Developments for Metaheuristics in Science and Industry
- :: Walter J. **Gutjahr** (University of Vienna) – Theory of Ant Colony Optimization: Status and Perspectives
- :: Mark **Harman** (King's College London) & Joachim **Wegener** (Daimler Chrysler Germany) – Search based Software Testing
- :: Teodor Gabriel **Crainic** (University of Montréal) – Cooperative Parallel Metaheuristics
- :: Jens **Gottlieb** (SAP Germany) – Metaheuristics in Practice: Solving Industrial Problems in Supply Chain Management

TUTORIALS:

- :: **Hyperheuristics** (Edmund Burke)
- :: **Ant Colony Optimization** (Marco Dorigo)
- :: **Multiobjective Combinatorial Optimization Problems** (Xavier Gandibleux)
- :: **Variable Neighborhood Search** (Pierre Hansen)
- :: **Memetic Algorithms** (Pablo Moscato)
- :: **Constraint Programming** (Gilles Pesant)
- :: **Cross Entropy Method** (Reuven Rubinstein)
- :: **Iterated Local Search** (Thomas Stützle)
- :: **Statistical Analysis** (Eric Taillard)
- :: **Software Class Libraries** (Stefan Voss)

PAPER SUBMISSION:

Papers submitted for presentation at the conference will be selected on the basis of an **extended abstract of 5 to 6 pages**. All abstracts will be reviewed by the international program committee. Further information and instructions will be posted on the conference web site.

IMPORTANT DATES:

- :: **Deadline of Submission:** **March 15, 2005**
- :: **Notification of Acceptance:** **May 15, 2005**
- :: **Deadline of Submission of Extended Abstract:** **July 1, 2005**
- :: **Conference:** **August 22-26, 2005**

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Coffehouse: Apple Strudel. © Wien-Tourismus / Robert Osmak



State Opera House. © Wien-Tourismus / Daniel Zupanc



Lippizaner (Spanish Riding School) made of Augarten China. © Wien-Tourismus / Bryan Duffy

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>MIC2005<<Vienna< Call for Papers

August 22-26, 2005

Methods

Local Search based:

- ∴ Guided Local Search (GLS)
- ∴ Iterated Local Search (ILS)
- ∴ Large Neighbourhood Search (LNS)
- ∴ Simulated Annealing
- ∴ Tabu Search
- ∴ Variable Neighbourhood Search (VNS)

Evolutionary Algorithms:

- ∴ Distribution Estimation Algorithms (e.g. PBIL, MIMIC)
- ∴ Evolution Strategies (ES)
- ∴ Evolutionary Programming (EP)
- ∴ Genetic Algorithms (GA)
- ∴ Genetic Programming (GP)
- ∴ Memetic Algorithms

Constructive Algorithms:

- ∴ Ant Colony Optimization (ACO)
- ∴ Cross Entropy Method
- ∴ GRASP

Other:

- ∴ Artificial Neural Nets
- ∴ Constraint Satisfaction
- ∴ Constraint Programming
- ∴ Corridor Method
- ∴ Hybridisation with Exact Methods (e.g. Column Generation)
- ∴ Hyperheuristics
- ∴ Local Branching
- ∴ Path Relinking
- ∴ Pilot Method
- ∴ Scatter Search

Application Areas

Routing:

- ∴ Arc Routing Problems (ARP)
- ∴ Telecommunications (Network Routing)
- ∴ Travelling Salesman Problem (TSP) and Extensions
- ∴ Vehicle Routing Problems (VRPs) and Extensions

Scheduling and Timetabling:

- ∴ Activity Scheduling
- ∴ Machine Scheduling
- ∴ Project Scheduling
- ∴ Staff Scheduling
- ∴ Timetabling
- ∴ Unit Commitment

Location / Allocation:

- ∴ Assignment Problems
- ∴ (Facility) Location Problems

Vector based Problems:

- ∴ Knapsack Problems
- ∴ Portfolio Selection

Other:

- ∴ Bioinformatics
- ∴ Cutting and Packing
- ∴ (Graph) Partitioning Problems
- ∴ Search based Software Engineering
- ∴ Set Covering / Partitioning

Other Characteristics of the Paper

- ∴ Dynamic Problem
- ∴ Multi Objective
- ∴ Parallel Computing
- ∴ Software Engineering (e.g. Software Class Libraries)
- ∴ Statistical Testing
- ∴ Stochastic Problem
- ∴ Theoretical Foundation (e.g. Convergence Proof)