Call For Papers

Matheuristics 2008
June 16-18, 2008,
Bertinoro, Italy.

Building on the success of the first Matheuristics meeting (August, 2006), the Matheuristics 2008 workshop is proposed as a primary forum for researchers working either on exploiting mathematical programming (MP) techniques in a (meta)heuristic framework or on 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.

Metaheuristic algorithms and frameworks, such as tabu search, genetic algorithms, VNS, etc., 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 subproblems thereof. However, research on mathematical programming, and in particular on discrete optimization, has led to a state of the art where MIP solvers or customized MP codes can be effective even in a heuristic context, both as primary solvers or as subprocedures. Matheuristics 2008 will help defining the state of the art for the computational effectiveness and efficiency or theoretical properties of integrated metaheuristics/MIP codes (MH codes).

Matheuristics 2008 will be entirely dedicated to this new research option, the conference program will consist only of plenary presentations. All accepted presentations will be published in a conference proceedings volume. Grants will be available for Ph.D. students.

Topics of interest include:
- Dual information and metaheuristics;
- Decompositions and lower/upper bounds in MH codes;
- Upper and lower bounds interacting evolutions;
- Stochastic programming and heuristic search;
- Metaheuristics 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 MH applications.

Matheuristics 2008 is not interested in heuristics tailored to a specific problem that have no element which can be generalized to other problems - no matter how

mathematically sophisticated they are – nor in metaheuristics variants which are not justified by a mathematical model.

High-quality scientific contributions to the listed topics are solicited, max 12 pages.
April 15, 2008: Deadline for submissions.
Please see the conference web site for full and up-to-date information:
http://astarte.csr.unibo.it/matheuristics2008

Matheuristics 2008 Organization:

Conference Chair: Pierre Hansen, HEC Montreal (Canada), Stefan Voss, University of Hamburg (Germany).

Steering Committee and Local Chair: Vittorio Maniezzo, University of Bologna (Italy)

Technical Program Committee:
- Roberto Battiti, University of Trento, Italy
- Marco Caserta, University of Hamburg, Germany
- Emilie Danna, ILOG, France
- Karl Doerner, Salzburg Research, Austria
- Anton Eremeev, Omsk Branch of Sobolev Inst. of Mathematics SB RAS, Russia
- Andreas Fink, Helmut-Schmidt-University, Hamburg, Germany
- Matteo Fischetti, University of Padova, Italy
- Michel Gendreau, University of Montreal, Canada
- Peter Greistorfer, Karl-Franzens-Universität Graz, Austria
- Walter Gutjahr University of Vienna, Austria
- Pierre Hansen, HEC Montreal, Canada
- Richard Hartl, University of Vienna, Austria
- Hideki Hashimoto, Kyoto University, Japan
- Andrea Lodi, University of Bologna and IBM T.J. Watson Res. Center, U.S.A.
- Vittorio Maniezzo, University of Bologna, Italy.
- Nenad Mladenovic, Brunel University, UK
- George Nemhauser, Georgia Institute of Technology, U.S.A.
- Marcus Poggi, Pontificial Catholic University, Brazil
- Christian Prins, University of Troyes, France
- Gunter Raidl, Technical University of Vienna, Austria
- Marc Reimann, University of Warwick, UK
- Mauricio Resende, AT&T Labs Research, USA
- Celso Ribeiro, Pontificial Catholic University, Brazil
- Andrea Schaerf, University of Udine, Italy;
- Wolfgang Slany, Technische Universität Graz, Austria
- Thomas Stuetzle, IRIDIA, Université Libre de Bruxelles, Belgium
- Daniele Vigo, University of Bologna, Italy
- Stefan Voss, University of Hamburg, Germany
- Jean-Paul Watson, Sandia National Labs, USA
- David Woodruff, University of California at Davis, USA

Steering committee: Vittorio Maniezzo, Matteo Fischetti, Thomas Stuetzle.

If you have any questions, please contact Vittorio Maniezzo at vittorio.maniezzo@unibo.it.