First Announcement of School and Workshop on

Approximate Solution of Hard Combinatorial Problems

The Italian Chapter of the European Association for Theoretical Computer Science is organizing a scientific event on "Approximate solution of hard combinatorial problems" consisting in a school followed by a workshop to be held in Udine (north-eastern part of Italy) in the period September 10-19, 1996.

The aim of the School is to provide researchers (especially young researchers) in computer science and related fields with a broad and consistent overview of the most important recent results in the area of approximation, taking into account both the complexity-theoretical and the combinatorial approaches to the subject. The subsequent Workshop will be the occasion for the presentation of new results on the same topic.

Directors of the event are:

- G. Ausiello, University of Rome "La Sapienza"
- M. Protasi, University of Rome "Tor Vergata"
- P. Serafini, University of Udine

Preliminary Program

Part I-School (September 10-13 and 16-17, 1996)

During the School, a state-of-the-art presentation of both basic and advanced results concerning approximation algorithms and approximability of hard problems will be extensively developed.

Some of the main topics that will be addressed are:

- Approximability classes and approximation preserving reducibilities
- Limits to approximability
- Advanced approximation techniques
- Mathematical programming and approximation algorithms
- Approximation in set problems
- Approximation in graph problems
- Parallel approximation algorithms
- Heuristics
- Approximate counting

The lectures will be organized on a basis of six hours per day for a total of 36 hours.

List of Lecturers

- P.L. Crescenzi, Rome University "La Sapienza", Italy
- M. Fischetti, Udine University, Italy
- M. Goemans, MIT, USA
- M. Juenger, Cologne University, Germany (to be confirmed)
- F. Maffioli, Milan Polytechnic, Italy
- S. Martello, Bologna University, Italy
- R. Motwani, Stanford University, USA (to be confirmed)
- Ch. Papadimitriou, University of California at Berkeley, USA
- P. Spirakis, Patras University, Greece
- M. Sudan, IBM "Thomas J. Watson" Research Center, USA
- M. Yannakakis, Bell Laboratories, USA

Part II-Workshop (September 18-19, 1996)

During the Workshop new results concerning the topics of the School will be presented by some of the most active researchers in the field. Approximately twenty papers will be presented. A selection of the papers will be invited for a special issue of Theoretical Computer Science.

Organization

The School will be hosted by the International Centre for Mechanical Sciences (CISM), an international cultural organization located in Udine. Udine is a nice, ancient town in the North Eastern region of Italy, approximately 100 Km from Venice. Udine can be easily reached by train and plane (through the Trieste-Udine Airport).

Among the sponsors of the event will be:

- UNESCO
- CISM
- European Association for Theoretical Computer Science
- Italian National Research Council

Further Information

Further information concerning the scientific program, accommodation and registration will be provided in the Second Announcement. For possible enquiries you may contact

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