SCHOOL OF ANALYSIS AND DESIGN OF ALGORITHMS IN COMBINATORIAL OPTIMIZATION

September 10–21, 1979, Udine, Italy

Sponsored by the Commission of European Communities, by the Italian National Research Council (C.N.R.) and by the International Centre for Mechanical Sciences (C.I.S.M.), a School on Analysis and Design of Algorithms in Combinatorial Optimization will take place in Udine (Italy) from the 10th to the 21st of September, 1979.

The course is devoted to the study of problems of combinatorial optimization from several points of view:
- abstract classification of combinatorial problems under their structural and complexity properties;
- characterization of the approximation properties;
- performance of specific classes of (exact and approximate) algorithms for specific classes of problems,

with the aim of obtaining fruitful meetings among experts in different areas of complexity theory and operations research.

A non-exhaustive list of topics that will be treated is the following:
- low level complexity classes; the NP-complete degree,
- methods for determining lower bounds,
- combinatorial structure of NP-complete optimization problems,
- discrete optimization algorithms (group theoretic, branch and bound, etc.),
- various concepts of approximation,
- probabilistic analysis of algorithms and analysis of probabilistic algorithms.

Some sessions will be devoted to panel discussions on subjects for future research and for the presentation of short working papers by the participants.

The following lecturers have already confirmed their participation:
Prof. D. S. Johnson (Bell Laboratories, U.S.A.), Prof. R. Karp (University of California, U.S.A.), Prof. G. Lawler (University of California, U.S.A.), Prof. J. K. Lenstra (Matematisch Centrum, The Netherlands), Prof. A. Rinnooy Kan (Erasmus University, The Netherlands), Prof. C. P. Schnorr (University of Frankfurt, F.R.G.), Prof. G. Ausiello (National Research Council, Italy), Prof. F. Luccio (University of Pisa, Italy), Prof. M. Lucertini (National Research Council, Italy), Prof. F. Maffioli (Polytechnic of Milan, Italy).