Editorial

The multiobjective optimization paradigm in multicriteria decision analysis had a striking success during the 70s and until today, mainly in the USA with the methodological issues on pareto optimality, goal programming, compromise programming, and interactive utility assessment. In Europe, scientists focused their researches in discrete multicriteria problems using outranking methods and disaggregation procedures in a constructive way in order to effectively support the modeling and decision making process. Special attention was paid to the insertion of these scientific tools in the real world decision processes.

The aim of this special issue is to present some recent works on the above approaches. The first three papers deal with the multiobjective optimization problem, while the last three papers present some theory and applications of disaggregation (inference) procedures.

Nakayama and Kagaku present goal programming approaches to pattern classification and their application to the portfolio selection problem. The goal programming formulation with imprecision related to the goal values is the subject of the paper by Martel and Aouni. Finally, Visée, Teghem, Pirlot and Ulungu present interesting branch and bound procedures to solve the well known knapsack problem with two objectives to optimize.

The menu of disaggregation methods package contains a very interesting and original procedure to estimate indirectly the parameters of ELECTRE TRI (sorting with ELECTRE) from past assignment decisions (paper by Mousseau and Slowinski). The second paper by Siskos, Grigoroudis, Zopounidis, and Saurais shows the usefulness of collective disaggregation rules in measuring the customer satisfaction via appropriate surveys. Kettani, Oral and Siskos use a similar disaggregation procedure to evaluate real estate. The approach is empirically shown using data from the City of Edmonton, Canada. All the above disaggregation methodologies employ special linear programming formulations.

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Guest Editors

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