



**A THEORETICAL FOUNDATION METAHEURISTIC
METHOD TO SOLVE SOME MULTIOBJECTIVE
OPTIMIZATION PROBLEMS**

Kounhinir Somé, Blaise Somé and Berthold Ulungu

Abstract

In the literature, many metaheuristics are available to find a good approximation of efficient or Pareto optimal solutions of multiobjective optimization problems. But most of these methods don't have a theoretical foundation. In this paper, we propose a new metaheuristic method, called MOMA (Multi-Objective Alienor Metaheuristic), which enable to solve efficiently multiobjective optimization problems and has the theoretical foundation. In order to highlight these Characteristics of this MOMA method we have solved two didactic examples.

Keywords and phrases: metaheuristics, Alienor transformation, linear multiobjective optimization, weighted Tchebychev metric, Pareto optimality.

**Pioneer Journal
of Advances in
Applied
Mathematics**



Pioneer Scientific
Publisher