عنوان مقاله:

On the structure of the equitably nondominated set of multi-objective optimization problems

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خلاصه مقاله:

This paper is mainly concerned with some of the theoretical aspects of equitable multi-objective optimization. By using the equitability preference structure, we discuss some properties of the equitably nondominated set, such as nonemptiness, external stability and connectedness. Also, we introduce the concept of proper equitable nondominance, and show that these solutions can be obtained by minimizing a weighted sum of the sort of objective functions where all weights are positive and decreasing. Moreover, we present a hybrid scalarization problem to generate equitably nondominated solutions. This method also provides a necessary condition for the existence of properly equitable nondominated solutions.

كلمات کلیدی:

Nondominancy, Proper nondominance, Equitability, External stability, Connectedness, Multi-objective programming

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