

An evolutionary multi-objective optimization algorithm for portfolio selection problem

Guillermo Cabrera G.

Vasconcellos C.

Soto R.

Rubio J.M.

Paredes F.

Crawford B.

Cultural algorithms (CAs) are one of the metaheuristics which can be adapted in order to work in multiobjective optimization environments. On the other hand, portfolio selection problem (PSP) is a wellknown problem in literature. However, only a few articles have applied evolutionary multi-objective (EMO) algorithms to these problems and articles presenting CAs applied to the PSP have not been found. In this article, we present a bi-objective cultural algorithm (BOCA) which has been applied to the PSP, and obtaining acceptable results in comparison with other well-known EMO algorithms from the literature. The considered criteria of the problem are risk minimization and profit maximization. The different solutions obtained with the BOCA have been compared using max-delta-area metric. © 2011 Academic Journals.

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