Optimality and Duality for Multiple-Objective Optimization with Generalized a-Univex Functions

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Abstract⎯The aim of the present paper is to obtain a number of Kuhn-Tucker type sufficient optimality conditions for a feasible solution to be an efficient solution under the assumptions of the new notions of weak strictly pseudo quasi a-univex, strong pseudo quasi a-univex, and weak strictly pseudo a-univex vector valued functions. We also derive the duality theorems for Mond-Weir and general Mond-Weir type duality under the aforesaid assumptions.

Keywords⎯Multiobjective programming, Duality, a-Univexity, Generalized convexity, Efficient solution.

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