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On Multiple Objective Optimization Involving Generalized Convexity

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Abstract— The aim of the present work is to characterize weakly efficient solution of multiobjective programming problems under the assumptions of α-invexity, using the concepts of critical point and Kuhn-Tucker stationary point for multiobjective programming problems. In this paper, we also extend the above results to the nondifferentiable multiobjective programming problems. The use of α-invex functions weakens the convexity requirements and increases the domain of applicability of the multiobjective programming in physical sciences and economics.

Keywords— α -invexity, KT-α -invex problems, Kuhn-Tucker optimality conditions.

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