

论文

生成锥内部凸-锥-类凸集值优化问题的Henig真有效性

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摘要:

该文讨论局部凸空间中的约束集值优化问题. 首先, 在生成锥内部凸-锥-类凸假设下, 建立了Henig真有效解在标量化和Lagrange乘子意义下的最优性条件. 其次, 对集值Lagrange映射引入Henig真鞍点的概念, 并用这一概念刻画了Henig真有效解. 最后, 引入了一个标量Lagrange对偶模型, 并得到了关于Henig真有效解的对偶定理. 另外, 该文所得结果均不需要约束序锥有非空的内部.

关键词: 集值映射 生成锥内部凸-锥-类凸性 Henig有效性 鞍点 对偶

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90C26; 90C29

Henig Proper Efficiency in the ic-Conen-Convexlike Set-valued Optimization Problems

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Abstract:

In this paper, the set-valued vector optimization problems with constraint in locally convex spaces is studied. Under the assumption of the ic-cone-convexlikeness, the optimality conditions for Henig proper efficient solutions are established in terms of scalarization and Lagrange multipliers. After introducing the new concept of Henig proper saddle-point for an appropriate set-valued Lagrange map, we use it to characterize the Henig proper efficiency. In addition, a scalar Lagrange dual model for set-valued optimization is presented, and the dual theorems are obtained in sense of Henig proper efficiency. All the results obtained in this paper are proven under the conditions that the constraint cone need not to have a nonempty interior.

Keywords: Set-valued map ic-cone-convexlikeness Henig proper efficiency Saddle-point Duality

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