

Analele Universității București, Matematică  
Anul LVII(2008), pp. 285–291

## On approximate solutions in multiobjective optimization

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**Abstract** - In this paper we give necessary and sufficient conditions for the  $\varepsilon$ -quasi weak efficiency, two necessary conditions for the  $\varepsilon$ -quasi proper efficiency and two sufficient conditions for  $\varepsilon$ -quasi efficiency in multiobjective optimization. No assumption of any convexity is made in this paper and the discussion is carried out in a very general framework. The results generalize the corresponding ones in Kaliszewski (1995), Li and Wang (1991).

**Key words and phrases** : Multiobjective programming, optimization, approximate solution.

**Mathematics Subject Classification** (2000) : 90C29, 90C30, 49M37.