

Extremal properties of generalized convex vector-valued functions

Ovidiu Bagdasar* Nicolae Popovici†

02.04.2015

Abstract

It is known that any local maximizer of an explicitly quasiconvex real-valued function is actually a global minimizer, whenever it belongs to the intrinsic core of the function's domain. We show that a similar property holds for componentwise explicitly quasiconvex vector-valued functions, with respect to the optimality concepts of ideal, strong and weak efficiency. These new results are applied to systems of linear equations, modelled as vector optimization problems.

*University of Derby, UK

†UBB Cluj-Napoca