Pseudoaffine variational inequalities and pseudolinear programming problems

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Abstract

We find equivalence conditions between a variational inequality and a generalized pseudolinear programming problem, under generalized differentiability and pseudoaffinity hypothesis.

In order to obtain this, first we will establish some properties of bifunctions on generalized invex sets. Then we introduce notions of generalized convexity for a function (with respect to a bifunction) and after that we make the connection between this convexity and generalized monotonicity.

Follows the statement of the main problems and the characterization of their respective sets of solutions. Finally we give a relation between these two sets.

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