

A new approach to optimality in a class of nonconvex smooth optimization problems

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ABSTRACT.

In this paper, a new approximation method for a characterization of optimal solutions in a class of nonconvex differentiable optimization problems is introduced. In this method, an auxiliary optimization problem is constructed for the considered nonconvex extremum problem. The equivalence between optimal solutions in the considered differentiable extremum problem and its approximated optimization problem is established under (Φ, ρ) -invexity hypotheses.

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