

Applying FAIPA in solving nonlinear complementarity problem

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We discuss the computational implementation of the FAIPA complementarity problem to solve non-linear. The FAIPA is an interior point algorithm for minimizing a nonlinear function with equality and inequality constraints. The algorithm requires a starting point x_0 within the region defined by the restrictions inequalities, generating a sequence of points also within this region. Through a new update rule for lambda and the matrix B in algorithm FAIPA the search direction obtained by FAIPA system will generate a sequence of points inside the feasible region converging the solution of the Nonlinear Complementarity. We will see the advantages that provides FAIPA when using this new update and a set of test problems verify the efficiency of this method over other types of algorithms that are used to solve problems of non-linear complementarity.

Referências

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