On penalty methods for non monotone equilibrium problems

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Abstract

We consider a general equilibrium problem under weak coercivity conditions in a finite-dimensional space setting. It appears such a condition provides convergence of the general penalty method without any monotonicity assumptions. We also show that the regularized version of the penalty method enables us to further weaken the coercivity condition. © 2013 Springer Science+Business Media New York.

Keywords

Coercivity conditions, Equilibrium problems, Nonmonotone bifunctions, Penalty method, Regularized penalty method