

New method for approximating solutions of non-monotone equilibrium problems

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Abstract. In this research, we introduce a proximal-type algorithm for solving equilibrium problems in Hilbert spaces, and prove the strong convergence of the generated sequence to a solution of the problem by assuming neither any monotonicity condition on the bifunction nor any weak continuity condition on its arguments. Moreover, assuming the boundedness of the generated sequence, we show that the solution set of the problem is nonempty and the sequence converges strongly to a solution of the problem.

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