

Strong convergence of inertial hybrid subgradient methods for solving equilibrium problems in Hilbert spaces

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Abstract. In this paper, we introduce new iteration algorithms for solving equilibrium problems where the constrained sets are given as the intersection of the fixed point sets of demicontractive mappings in a real Hilbert space. The proposed algorithms are based on the subgradient method for variational inequalities and the inertial techniques for finding fixed points of nonexpansive mappings. Strong convergence of the iterative process is proved. Numerical experiments are provided to show computational efficiency of the proposed algorithms and comparison with some other known algorithms.