



Approximation of Solutions of Split Monotone Variational Inclusion Problem and Fixed Point Problem for a Finite Family of Nonexpansive Mappings

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Abstract

We propose a new iterative method for solving split monotone variational inclusion problem and fixed-point problem for a finite family of nonexpansive mappings. Within the context of real Hilbert spaces, we establish and validate a strong convergence theorem to achieve the common solution of the mentioned problems. The method and results presented in this paper extend and unify some recent known results in this field. Finally, some numerical illustrations are provided to further demonstrate the efficiency and competitiveness of our algorithm.

Keywords: Split monotone variational inclusion problem, nonexpansive mapping, fixed point problem, strong convergence, iterative method.

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