

Proximal Method of Solving Split System of Minimization Problem

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Abstract : The purpose of this paper is to introduce iterative algorithm solving split system of minimization problem given as a task of finding a common minimizer point of finite family of proper, lower semicontinuous convex functions and whose image under a bounded linear operator is also common minimizer point of another finite family of proper, lower semicontinuous convex functions. We obtain strong convergence of the sequence generated by our algorithm under some suitable conditions on the parameters. The iterative schemes are developed with a way of selecting the step sizes such that the information of operator norm is not necessary. Some applications and numerical experiment is given to analyse the efficiency of our algorithm.

Keywords : Hilbert Space, minimization problems, Moreau-Yosida approximate, split feasibility problem

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