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Successive relaxed projection algorithm for multiple-sets split equality problem. (Chinese. English summary) [Zbl 07404518]
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Summary: The multiple-sets split equality problem is an extended split feasibility problem, which has a wide application in image reconstruction, language processing, and seismic exploration. In order to solve this problem, we propose a successive relaxed projection algorithm with a variable stepsize which can fully use the information of the current iteration point and does not need the calculation of the operator norm. Furthermore, the weak convergence of the algorithm is proved. The numerical examples show the superiority of the algorithm in the number of iterations and the running time.

MSC:
65J10 Numerical solutions to equations with linear operators

Keywords:
multiple-sets split equality problem; successive relaxed projection algorithm; convergence

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