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Banach空间中关于变分不等式组与严格伪压缩映射的粘滞逼近法

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Viscosity Approximation Methods for Systems of Variational Inequalities and Strict Pseudo-contractions Banach Spaces

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摘要 本文利用粘滞逼近法建立了一迭代序列来逼近两个集合的公共元素, 这两个集合分别是Banach空间中广义变分不等式组的解集与Banach空间中有限个严格伪压缩映射的公共不 动点集. 本文证明了该迭代序列强收敛到这两个集合的某一公共元素, 且该元素为某一变分不等式的解.本文的结果提高与推广了许多相关结论.

关键词： q-一致光滑 不动点 严格伪压缩 粘滞逼近 变分不等式

Abstract： In this paper, we introduce an iterative scheme by the viscosity approximation method for finding a common element of the set of solutions of a system of generalized variational inequalities and the set of common fixed points of a finite family of strictly pseudo-contractive mappings which solves some variational inequality in a real Banach space. Our results improve and extend the corresponding results announced by many others.

Key words： q-uniformly smooth fixed point strict pseudo-contraction viscosity approximation variational inequality

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