

عنوان مقاله:

Convergence of the S-iteration process for the multi-valued generalized $(\alpha - \beta)$ -nonexpansive mappings in Banach spaces

محل انتشار:

مجله آنالیز غیر خطی و کاربردها، دوره 14، شماره 1 (سال: 1402)

تعداد صفحات اصل مقاله: 12

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خلاصه مقاله:

In this work, we first introduce the modified S-iteration method to approximate common fixed points of three multi-valued generalized $(\alpha - \beta)$ -nonexpansive mappings in the setting of Banach spaces. Then we prove some convergence theorems for these mappings by using it. Also, a numerical example is given to illustrate the main results. Furthermore, we introduce a one-step iterative process for generalized $(\alpha - \beta)$ -nonexpansive mappings and we prove strong convergence results for the one-step iterative process involving such mappings. Thus our results extend and generalise corresponding results in the contemporary literature.

کلمات کلیدی:

Fixed point, multi-valued generalized $(\alpha - \beta)$ -nonexpansive mappings, uniformly convex Banach space

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