An iterative process for a hybrid pair of generalized I-asymptotically nonexpansive single-valued mappings and generalized nonexpansive multi-valued mappings in Banach spaces

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ABSTRACT.

In this paper, an iterative process for a hybrid pair of a finite family of generalized I-asymptotically nonexpansive single-valued mappings and a finite family of generalized nonexpansive multi-valued mappings is established. Moreover, the weak convergence theorems and strong convergence theorems of the proposed iterative process in Banach spaces are proven. The examples are established for supporting our main results. The obtained results can be viewed as an improvement and extension of the several results in the literature.

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