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Strong Convergence Theorems for Iterative Schemes with Errors for Asymptotically Demicontractive Mappings in Arbitrary Real Normed Linear Spaces

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Abstract:

In the present paper, by virtue of new analysis technique, we have established several strong convergence theorems for the modified Ishikawa and Mann iteration schemes with errors for a class of asymptotically demicontractive mappings in arbitrary real normed linear spaces. Our results extend, generalize and improve the corresponding results obtained by Igbokwe [1], Liu [2], Osilike [3] and others.

[1] D.I. IGBOKWE, Approximation of fixed points of asymptotically demicontractive mappings in arbitrary Banach spaces, to appear in *J.Ineq. Pure and Appl. Math.*

[2] Q.H. LIU, Convergence theorems of sequence of iterates for asymptotically demicontractive and hemicontractive mappings, *Nonlinear Anal. Appl.*, **26** (1996), 1835--1842.

[3] M.O. OSILIKE, Iterative approximations of fixed points asymptotically demicontractive mappings, *Indian J. Pure Appl. Math.*, **29** (1998), 1291--1300.



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