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TWO-STEP ITERATION PROCESS FOR CONTRACTIVE CONDITION IN BANACH SPACE

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Abstract

In this paper, we established a generalized iterative process and analyze a new two-step iteration scheme for the class of Zamfirescu operators in Banach space. Our iteration scheme includes generalized Mann type and the iteration scheme given by Thianwan [16] as special cases. The results obtained in this paper represent an extension as well as refinement of previous known results. A new iterative scheme for approximating common fixed points of Zamfirescu operator is defined and we have proved strong convergence theorem in a Banach space.

Key Words : *Two-step iteration scheme, Zamfirescu Operator, Banach space, Strong convergence, Common fixed point.*

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