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On the approximation of fixed points of weak contractive mappings

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ABSTRACT. In this paper, the class of weak contractive type mappings, introduced in [3] and studied in [3] and [4] is compared to some other well known contractive type mappings in Rhoades' classification. As corollaries of our main results, we obtain several convergence theorems for approximating fixed points by means of Picard iteration. These complete or extend the corresponding results in literature by providing error estimates, rate of convergence for used iterative method as well as results concerning the data dependence of the fixed points.

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