

ASYMPTOTIC BEHAVIOR OF PERTURBED ITERATES OF SET-VALUED MAPPINGS

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Abstract. It has recently been shown that if for any initial point there exists a trajectory of a nonexpansive set-valued mapping attracted by a given set, then this property is stable under small perturbations of the mapping. In the present paper we show that the same conclusion continues to hold under the weaker condition that for any initial point there exists a trajectory of the nonexpansive set-valued mapping with a subsequence which is attracted by the attractor.

Key Words and Phrases: Attractor, Hausdorff distance, metric space, nonexpansive set-valued mapping, trajectory.

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