COMMON FIXED POINT THEOREMS FOR ASYMPTOTICALLY \( I \)-CONTRACTION MAPPINGS WITHOUT CONVEXITY

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Abstract. This paper aims to present common fixed point theorems for \( I \)-nonexpansive mappings from \((I, T)\)-star shaped subset of a uniformly convex Banach space \( X \) into \( X \) under some asymptotic \( I \)-contraction assumptions. These results extend and generalize results valid for bounded convex sets or asymptotically compact sets.

Key Words and Phrases: Asymptotic, asymptotic cone, \( I \)-contraction, weakly compatible maps, derivative at infinity, firm asymptotic cone, common fixed point, \( I \)-nonexpansive map.

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References


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