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APPROXIMATION OF FIXED POINTS OF ASYMPTOTICALLY PSEUDOCONTRACTIVE MAPPINGS IN BANACH SPACES

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Abstract. Let T be an asymptotically pseudocontractive self-mapping of a nonempty closed convex subset D of a reflexive Banach space X with a Gâteaux differentiable norm. We deal with the problem of strong convergence of almost fixed points $x_n = \mu_n T^n x_n + (1-\mu_n)u$ to fixed point of T. Next, this result is applied to deal with the strong convergence of explicit iteration process $z_{n+1} = v_{n+1}(\alpha_n T^n z_n + (1-\alpha_n)z_n) + (1-v_{n+1})u$ to fixed point of T

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