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Convergence and existence results for best proximity points

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Abstract

We provide a positive answer to a question raised by Eldred and Veeramani [A.A. Eldred, P. Veeramani, Existence and convergence of best proximity points, J. Math. Anal. Appl. 323 (2006) 1001-1006] about the existence of a best proximity point for a cyclic contraction map in a reflexive Banach space. Moreover, we introduce a new class of maps, called cyclic φ-contractions, which contains the cyclic contraction maps as a subclass. Convergence and existence results of best proximity points for cyclic φ-contraction maps are also obtained. © 2008 Elsevier Ltd. All rights reserved.

Author Keywords