

Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: <http://rattler.cameron.edu/swjpam.html>
ISSN 1083-0464
Issue 2, December 2003, pp. 49–59.
Submitted: October 29, 2003. Published: December 31 2003.

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 non-empty 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

A.M.S. (MOS) Subject Classification Codes. 47H09, 47H10.

Key Words and Phrases. Almost fixed point, Asymptotically pseudocontractive mapping, Banach limit, Strong convergence

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The authors wish to acknowledge the financial support of Department of Science and
Technology, India, made in the program year 2002-2003, Project No. SR/FTP/MS-15/2000
and the Korea Research Foundation Grant (KRF-2000-DP0013)

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