

## DEMICLOSED PRINCIPLE AND CONVERGENCE OF A HYBRID ALGORITHM FOR MULTIVALUED \*-NONEXPANSIVE MAPPINGS

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**Abstract.** A demiclosed principle is proved for multivalued \*-nonexpansive mappings. Moreover, strong convergence of an iterative algorithm is obtained for such mappings in a Banach space by using metric projections. The results of this paper improve and extend the corresponding results for single valued nonexpansive mappings which was studied by many authors.

**Key Words and Phrases:** Multivalued \*-nonexpansive mapping, approximating fixed point, metric projection, uniformly convex Banach space.

**2010 Mathematics Subject Classification:** 47H09, 47H10.

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*Received: May 20, 2011; Accepted: March 29, 2012.*

