Tripled fixed point theorems for monotone mappings in partially ordered metric spaces

MARIN BORCUT

Abstract.

In this paper, we introduce the concept of tripled fixed point for nonlinear and monotone mappings in partially ordered complete metric spaces and obtain existence as well as existence and uniqueness theorems for contractive type mappings. Our results generalize and extend recent tripled fixed point theorems established by Berinde and Borcut [Berinde, V., Borcut, M., *Tripled fixed point theorems for contractive type mappings in partially ordered metric spaces*. Nonlinear Anal. **74** (2011) 4889–4897]. Examples to support our new results are given.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE NORTH UNIVERSITY OF BAIA MARE VICTORIEI 76, 430122 BAIA MARE, ROMANIA *E-mail address*: marinborcut@yahoo.com

Received: 28.09.2011; In revised form: 01.03.2012; Accepted: 23.04.2012 2010 Mathematics Subject Classification. 47H05, 47H10, 37C25, 54H25, 55M20, 58C30.

Key words and phrases. Tripled fixed point, monotone mappings, partially ordered complete metric spaces contractive.