

***n*-tupled Coincidence Point Results for Nonlinear Contraction in Partially Ordered Complete Metric Spaces**

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Abstract: In this paper, we establish *n*-tupled coincidence point theorems for a pair of mappings satisfying a nonlinear contractivity condition in partially ordered complete metric spaces. Our results extend and generalize several existing results in the literature: [Bhaskar and Lakshmikantham: *Nonlinear Anal.* 65(7) (2006), 1379-1393], [Lakshmikantham, and Ćirić: *Nonlinear Anal.* 70 (2009), 4341-4349], [Berinde and Borcut: *Nonlinear Anal.* 74(15) (2011), 4889-4897], [Borcut and Berinde: *App. Math. Comp.* 218(10) (2012), 5929-5936], [Borcut: *App. Math. Comp.* 218(14) (2012), 7339-7346], [Borcut: *HJMC*], [Gordji and Ramezani: preprint].

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1. INTRODUCTION

The classical Banach fixed point theorem [2] and its applications are well known. In the recent past, many authors extended this theorem by considering relatively more general contractive mappings on various types of metric spaces. In 2004, Ran and Reurings [17] extended Banach fixed point theorem to partially ordered complete metric spaces. Thereafter, Nieto and López [15] modified the Ran and Reuring's fixed point theorem. Nieto and López's fixed point theorem further generalized by many authors, for example ([1, 16]).

The idea of coupled fixed point was initiated by Guo and Lakshmikantham [9] in 1987 which is also followed by Bhaskar and Lakshmikantham [4] wherein authors introduced the notion of mixed monotone property for a weakly linear contraction mapping $F : X^2 \rightarrow X$, (where X is a partially