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EVEN TUPLED COINCIDENCE AND COMMON FIXED POINT RESULTS FOR WEAKLY CONTRACTIVE MAPPINGS IN COMPLETE METRIC SPACES VIA NEW FUNCTIONS

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Abstract. In this paper, we prove results on even tupled coincidence and common fixed points in ordered complete metric spaces for a pair of weakly contractive compatible mappings under some new control functions. Moreover, we also illustrate our main result with an example in arbitrary even order case.

Keywords. Partially ordered set; Control function; Compatible mapping; Mixed g-monotone property; n-tupled coincidence point.

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1. Introduction

Branciari [7] established a fixed point result for an integral-type inequality, which is a generalization of Banach contraction principle. Vijayaraju *et al.* [27] obtained a general principle, which made it possible to prove many fixed point theorems for pairs of integral type maps. Kada *et al.* [14] defined the concept of w-distance in a metric space and studied some fixed point theorems. Afterwards, Razani *et al.* [25] proved a fixed point theorem which is a new version of the main theorem in [7], by considering the concept of the w-distance, as follows:

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