

## GENERALIZED COMPATIBILITY IN PARTIALLY ORDERED METRIC SPACES

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**Abstract.** In this paper, we introduce the notion of generalized compatibility of a pair of mappings  $F, G : X \times X \rightarrow X$ , where  $(X, d)$  is a partially ordered metric space. We use this concept to prove a coupled coincidence point theorem for nonlinear contractions in partially ordered metric spaces. Our work extends the paper of Choudhury and Kundu [B.S. Choudhury and A. Kundu, A coupled coincidence point result in partially ordered metric spaces for compatible mappings, *Nonlinear Anal.* 73 (2010) 2524-2531]. Some examples are also given to illustrate the new concepts and the obtained result.

[Full text](#)

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