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**Common fixed points of ordered  $g$ -quasicontractions and weak contractions in ordered metric spaces.** (English) Zbl 1273.54055

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**Summary:** We introduce ordered quasicontractions and  $g$ -quasicontractions in partially ordered metric spaces and prove the respective coincidence point and (common) fixed point results. An example shows that the new concepts are distinct from the existing ones. We also prove fixed point theorems for mappings satisfying so-called weak contractive conditions in the setting of partially ordered metric space. Hence, generalizations of several known results are obtained.

**MSC:**

**54H25** Fixed-point and coincidence theorems (topological aspects)

**54F05** Linearly ordered topological spaces, generalized ordered spaces, and partially ordered spaces

**54E40** Special maps on metric spaces

Cited in <b>2</b> Reviews Cited in <b>7</b> Documents
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**Keywords:**

partially ordered metric space;  $g$ -quasicontraction; weak contraction; coincidence point; common fixed point

**Full Text:** [DOI](#)

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