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Common fixed point theorems for some new generalized contractive type mappings. (English) [Zbl 1133.54028](#)

J. Math. Anal. Appl. 333, No. 2, 780-786 (2007).

In this paper the author proves a common fixed point theorem for a pair of mappings $T, S : X \rightarrow X$, where (X, d) is a complete metric space, which satisfy a generalized contractive type condition:

$$F(d(Tx, Sy)) \leq \psi(F(M(x, y))) \quad \text{for all } x, y \in X,$$

where $M(x, y) = \max\{d(x, y), d(Tx, x), d(Sy, y), \frac{1}{2}(d(Tx, y) + d(Sy, x))\}$ and F, ψ satisfy suitable assumptions. Some special cases and an example of a mapping which satisfies the above condition but does not satisfy the general contractive condition are also provided.

Reviewer: [Dariusz Bugajewski \(Baltimore\)](#)

MSC:

[54H25](#) Fixed-point and coincidence theorems (topological aspects)

[47H10](#) Fixed-point theorems

Cited in **3** Reviews
Cited in **29** Documents

Keywords:

[common fixed point theorem](#); [generalized contractive](#); [metric space](#)

Full Text: [DOI](#)

References:

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