A FIXED POINT THEOREM
FOR CORRESPONDENCES ON CONE METRIC SPACES

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Abstract. In this paper, we prove that if $f$ is a contractive closed-valued correspondence on a cone metric space $(X, d)$ and there is a contractive orbit $\{x_n\}$ for $f$ at $x_0 \in X$ such that both $\{x_n\}$ and $\{x_{n+1}\}$ converge for some subsequence $\{x_{n_i}\}$ of $\{x_n\}$, then $f$ has a fixed point, which generalizes a fixed point theorem for contractive closed-valued correspondences from metric spaces to cone metric spaces.

Key Words and Phrases: Cone metric space, fixed point, contractive correspondence, closed-valued correspondence, contractive orbit.

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REFERENCES


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