TRIPLED FIXED POINTS AND TRIPLED BEST PROXIMITY POINTS IN MODULAR FUNCTION SPACES

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Abstract. In this paper, we investigate the existence and uniqueness of tripled fixed points and tripled best proximity points for contractive-type mappings in modular function spaces. Our approach generalizes classical fixed point results from normed and metric spaces to the modular setting, preserving the essential convergence properties. Interestingly, in order to obtain pairs and triplets of fixed points in normed or metric spaces, it is usually required that the contraction acts only with respect to the first variable. We demonstrate that similar existence and uniqueness results can be achieved even when the contraction is taken with respect to any of the variables – whichever is chosen. This observation provides a new degree of flexibility in fixed point theory and opens the way for further generalizations in modular and partially ordered spaces.

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