

Basis Theorem of Equivalence of Explicit-Type Iterations for the Class of Multivalued Phi-Quasi-Contrative Maps in Modular Function Spaces

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Abstract : We prove that the convergence of explicit Mann, explicit Ishikawa, explicit Noor, explicit SP, explicit multistep and explicit multistep-SP fixed point iterative procedures are equivalent for the classes of multi-valued phi-contraction, phi-Zamfirescu and phi-quasi-contractive mappings in the framework of modular function spaces. Our results complement equivalence results on normed and metric spaces in the literature as they elegantly cut out the triangle inequality.

Keywords : multistep iterative procedures, multivalued mappings, equivalence results, fixed point

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