THE EXISTENCE OF SOLUTIONS FOR A CLASS OF IMPULSIVE FRACTIONAL *Q*-DIFFERENCE EQUATIONS

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ABSTRACT

In this paper, we prove the existence and uniqueness of solutions for a class of initial value problem for impulsive fractional *q*-difference equation of order $1 < \alpha \leq 2$ by applying some well-known fixed point theorems. Some examples are presented to illustrate the main results.
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Keywords: *q*-calculus ; impulsive fractional *q*-difference equations; existence; uniqueness.