Q-ANALOGUE OF RIORDAN REPRESENTATION

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In [1], Shapiro and et al. formed a group which is called Riordan group. In [2], the authors proved that $q$-Riordan matrix can be represented by aid of the Eulerian generating functions and they defined $q$-Riordan group. In this study, using new binary operations, denoted by $*_q$ and $*_1/q$, and special $q$-operators, we obtain $q$–analogue of Riordan representation. Also we show that any $q$-matrices can be written as a pair of $q$-Riordan by aid of this representation. Specially, we get $q$-analogue of Riordan representation of $q$-Pascal matrix and inverse matrix.

REFERENCES