ON SOME ALTERNATIVE CHARACTERIZATIONS OF RIORDAN ARRAYS

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ABSTRACT. We give several new characterizations of Riordan Arrays, the most important of which is: if \( \{d_{n,k}\}_{n,k \in \mathbb{N}} \) is a lower triangular array whose generic element \( d_{n,k} \) linearly depends on the elements in a well-defined though large area of the array, then \( \{d_{n,k}\}_{n,k \in \mathbb{N}} \) is Riordan. We also provide some applications of these characterizations to the lattice path theory.