

Row Sums and Alternating Row Sums of Exponential Riordan Array

Dennis Davenport*, Destin Davis, Shakuan Frankson, Samiyyah Hardison
Howard University

The exponential Riordan group is a group of infinite lower triangular matrices that are defined by two exponential generating functions, g and f . The k th column of the matrix has the generating function $g \frac{f^k}{k!}$. It is well known that an exponential Riordan array can be characterized by using two sequences, the A_e and the Z_e sequences. In this presentation, we show that we can characterize an exponential Riordan array using the row sum and the alternating row sum. In the exponential Double Riordan group there are two exponential generating functions f_1 and f_2 such that the columns, starting at the left, have generating functions using f_1 and f_2 alternately. The exponential Double Riordan group has some of the same properties as the exponential Riordan group. In this presentation we will explore some of these properties.

Keywords: Exponential Riordan Arrays, Row Sums