

John Williams

Title: The combinatorics of the operator-valued free convolution of Jacobi distributions..

Abstract: We will consider B-valued distributions which are an operator-theoretic extension of probability measures. Certain classes of these distributions are distributed according to their Jacobi parameters which provide a combinatorial method for calculating their moments. We show that, in the case of even distributions, the combinatorial structure extends to their free convolution. We exploit this observation to provide several examples of the convolution operation in this non-commutative setting.