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Nonextensivity and Quantum Groups

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**Abstract:** Classical set theory is nonextensive since the mathematical definition of a set excludes the possibility that more than one copy of the same element can be in a set. We show that the description of random sets in terms of an algebra of creation operators and their hermitean conjugates yields an interpretation of the unitary quantum group  $SU_q(d)$  as the symmetry associated with the construction of  $d$  random sets from a given source set of  $M=(1-q)^{-1}$  elements.



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