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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.