CONSTRUCTION OF A COMPACT QUANTUM GROUP FOR TRANSPOSITION-COLORING FUNCTION

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Abstract: We apply the Woronowicz construction of compact quantum group to the function which associates different parameters (colors) with transpositions generating the set of four-element permutation. We show that in the case when one of the parameters equals one, we get a non-trivial (non-commutative) compact quantum group which is a twisted product of $SU_{-1}(2)$ and the two-dimensional torus.

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