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## **New model of the representations of the gauge groups and infinite dimensional Lebesgue measure**

The construction is based on the properties of remarkable measure in the infinite-dimensional cone which is called Lebesgue measure. The representation of the gauge group with the values from the group of rank 1 ( $SO(n, 1)$ ,  $SU(n, 1)$ ) can be realized using that measure. That realization gives a new look on the Fock space in which the same representations was defined 30 years ago. The main part of the talk is based on the joint paper with M. I. Graev (Funct. Anal. No. 4, 2007).