

Axel Saglio: Gaussian generating functionals on compact quantum groups

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One can define a quantum analogue of Levy processes on involutive bialgebras. These processes can be studied through the convolution semigroup of states formed by their marginal distributions, which in turn is fully characterized by its generating functional.

Among those quantum Levy processes, we will focus on Gaussian processes and present the classification of their generating functionals (Gaussian generating functionals) on some well-known compact matrix quantum groups such as S_n^+ , U_n^+ , O_n^+ and the quantum automorphism group $\text{Aut}^+(M_n, \text{Tr})$.