

Entanglement and functions of nilpotent variables

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Within supersymmetric theories fermions are described with use of the grassmannian variables - anticommuting, hence, nilpotent. Recently proposed formalism based on nilpotent, but commuting variables, turns out to be suitable to describe qubit systems. Separability of multiqubit states can be examined in terms of factorability of functions of such nilpotent variables. Relevant functional determinants are naturally linked to the invariants known from the Classical Invariant Theory, and used for characterization of multiqubit pure state entanglement. I will present the "nilpotent" analog of the Schroedinger representation and formalism for description multiqubit systems and entanglement. It turns out that some of interesting multiqubit entangled states proposed in quantum optics context, are represented by elementary functions of nilpotent variables.