



Contribution ID: 27

Type: **not specified**

On the dichotomy of “elementary versus composite” in Stratonovich-Weyl correspondence for qudits

Tuesday, 28 May 2024 16:10 (20 minutes)

The issue of evidence of a quantum system to be an elementary or a composite one is discussed within the Stratonovich-Weyl correspondence for finite dimensional systems.

The numerical experiments with a 4-level quantum system are performed in order to understand how its virtual 2-level subsystems manifest themselves in the properties of the Wigner quasiprobability distributions of quantum states.

The results of our studies show that “compositeness of a quantum system” is encoded not only in the density matrix of quantum state but in the structure of the Stratonovich-Weyl kernels as well.

Primary author: ХВЕДЕЛИДЗЕ, Арсен (Joint Institute for Nuclear Research)

Co-author: ROGOJIN, Ilya (JINR)

Presenter: ХВЕДЕЛИДЗЕ, Арсен (Joint Institute for Nuclear Research)