

Liubov Markovich

Title: On Quantizer-Dequantizer Operators Formalism for Integral Transforms Between Quasi-Probability Functions and Tomogram

Abstract:

An application of a quantizer-dequantizer method as a unifying description for representations of states in quantum mechanics is considered. Well-known quasi-distributions and tomograms are rewritten in terms of the dequantizer and quantizer operators. Using this description of the tomographic probability function and its symbol, we construct the invertible integral transforms between the tomogram and the quasi-probability distributions like Wigner, Kirkwood-Rihaczek, Choi-Williams, P- and Q- functions and others.