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Classical Fisher information for the state space of N-level systems through the Wigner function

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The studies of the geometrical aspects of the quantum information grow very actual owing to practical purposes.

Due to a request coming from the quantum technology, formulation of the quantum estimation theory turn to be in the frontier of a modern research. Particularly, the issue of interrelations between the phase space quasidistributions and classical Fisher metric are of current interest.

Our studies are devoted to this issue and in the report we claim a representation of the classical Fisher metric corresponding to a quantum system in states admitting description in terms of a positive definite Wigner function.

Summary

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