Accepted Manuscript

New entropic inequalities for qubit and unimodal Gaussian states

J.A. López-Saldívar, O. Castaños, M.A. Man'ko, V.I. Man'ko

PII: S0378-4371(17)30919-6
DOI: http://dx.doi.org/10.1016/j.physa.2017.09.027
Reference: PHYSA 18632

To appear in: *Physica A*

Received date : 24 June 2017

Please cite this article as: J.A. López-Saldívar, O. Castaños, M.A. Man'ko, V.I. Man'ko, New entropic inequalities for qubit and unimodal Gaussian states, *Physica A* (2017), http://dx.doi.org/10.1016/j.physa.2017.09.027

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- A series for the Tsallis relative entropy S_q between two density matrices is obtained.
- The first term of the series the von Neumann relative entropy give arise to a new inequality for the mean value of the energy, the von Neumann entropy and, the partition function of the system.
- The inequality previously described is studied for a qubit system and a one mode quadratic Hamiltonian. For this the partition function for a general quadratic Hamiltonian is obtained.
- As an example the comparison of the thermal light state as a thermal equilibrium state for the parametric amplifier Hamiltonian is presented.

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/5102369

Download Persian Version:

https://daneshyari.com/article/5102369

Daneshyari.com