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Extended quantum portrait of MGD black holes and information entropy. (English)

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Summary: The extended minimal geometric deformation (EMGD) is employed on the fluid membrane paradigm, to describe compact stellar objects as Bose-Einstein condensates (BEC) consisting of gravitons. The black hole quantum portrait, besides deriving a preciser phenomenological bound for the fluid brane tension, is then scrutinized from the point of view of the configurational entropy. It yields a range for the critical density of the EMGD BEC, whose configurational entropy has global minima suggesting the configurational stability of the EMGD BEC.

MSC:

83C57 Black holes

94A17 Measures of information, entropy

Cited in **3** Documents

Full Text: [DOI](#) [arXiv](#)

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