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Information theoretical methods as discerning quantifiers of the equations of state of neutron stars.

In this work we use the statistical measures of information entropy, disequilibrium and complexity to discriminate different approaches and parametrizations for different equations of state for quark stars.

We confirm the usefulness of such quantities to quantify the role of interactions in such stars. We find that within this approach, a quark matter equation of state such as SU(2) NJL with vectorial coupling and phase transition is slightly favored and deserves deeper studies.

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