HOW COMPLEX IS THE QUANTUM MOTION?

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Suppose we are given two quantum systems how can we decide which one is more complex than the other? In classical mechanics the notion of complexity is rooted in the local exponential instability which leads to dynamical chaos. Such property is absent in quantum mechanics. Then how do we do? This talk is addressed to those interested in the above questions.

V. Balachandran, G. Benenti, G. Casati, J. Gong: "Phase-space characterization of complexity in quantum many-body dynamics". Preprint.