

ABSTRACT. The entropy of categorical dynamics is defined by Dmitrov, Haiden, Katzarkov and Kontsevich. It can be thought of as a categorical generalization of the topological entropy in algebro-geometric settings.

In comparison with the classical theory, it was found that there are some interesting phenomena on this topic. For examples, the Gromov–Yomdin type functor is one satisfying a categorical analogue of classical Gromov–Yomdin equality, the pseudo-Anosov functor is defined by using Bridgeland stability condition, which is certainly analogue of the pseudo-Anosov homeomorphism on oriented surfaces. Moreover, we prove an inequality between the categorical entropy of an endomorphism on algebraic varieties and the local entropy of induced local morphism on its periodic points. This result suggests that categorical approach is useful.

I will show them in the poster.