

1147-37-411

Kaoru Sano* (ksano@math.kyoto-u.ac.jp), Department of Mathematics, Faculty of Science, Kyoto University, Kyoto, Kyoto-shi 606-8502, Japan. *Counting periodic points of self-morphisms on semi-abelian varieties*. Preliminary report.

In 1968, Bowen conjectured that the asymptotic behavior of the number of n -periodic points are controlled by the topological entropy, and he proved it for surjective self-morphisms satisfying axiom A on a smooth projective manifolds. On Bowen's conjecture, Diller, Favre, Iwasaki, and Uehara mainly studied birational self-maps on a smooth projective surfaces. Herring also studied the self-morphisms on simple abelian varieties. Moreover, the equidistribution of periodic points is studied by Briend, Duval, Dinh, Nguyen, Truong, Sibony, Yuan, and so on. These researches are on algebraically stable Asonov self-maps, i.e., the pull-back does not have eigenvalues of modulus 1. In this talk, we prove Bowen's conjecture for surjective self-morphisms on semi-abelian varieties such that possibly not Asonov. This theorem is purely in the field of complex dynamics. We however use Baker's theorem on the lower bound of the linear sum of the logarithm of algebraic numbers, which is in the field of Diophantine approximation. (Received January 23, 2019)