

1116-37-1171 **Kenneth Scott Jacobs*** (kjacobs2@uga.edu). *Lyapunov Exponents in non-Archimedean Dynamics.*

The Lyapunov exponent of a rational map ϕ measures the rate of growth of a point in a generic orbit. It is related to the orbits of the critical points of ϕ , and when ϕ is defined over \mathbb{C} , a sharp lower bound is $\frac{1}{2} \log d$, where d is the degree of the map.

Much less is known about Lyapunov exponents for maps defined over non-Archimedean fields. In this talk, we will give an explicit lower bound similar to the one over \mathbb{C} which is sharp for maps of good reduction. We will also give a formula relating Lyapunov exponents to Silverman's critical height. (Received September 17, 2015)