

1086-14-1833

Amy Ksir* (ksir@usna.edu) and **Caroline Grant Melles** (cgg@usna.edu). *Automorphisms of algebraic, tropical, and non-Archimedean analytic curves.*

Let K be an algebraically closed field, complete with respect to a nontrivial non-Archimedean absolute value. For a smooth algebraic curve X over K , there is an associated Berkovich analytic curve X_{an} . One can choose a semistable vertex set, which is a finite set of points of X_{an} , and define the associated skeleton $\Sigma(X, V)$ of X , which is a finite metric graph embedded in X_{an} . Different tropicalizations of X are induced by different toric embeddings. Baker, Payne and Rabinoff showed that for each tropicalization X_{trop} of X , there is a natural map from X_{an} to X_{trop} that factors through a retraction onto a skeleton $\Sigma(X, V)$.

We will describe some of the relationships between the automorphism groups of X , X_{an} , $\Sigma(X, V)$, and X_{trop} . Many pictures and interesting examples will be given. (Received September 24, 2012)