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**Amy Ksir** (ksir@usna.edu) and **Caroline Grant Melles\*** (cgg@usna.edu). *Automorphisms of genus 2 Berkovich analytic curves and their skeletons.*

Let  $K$  be an algebraically closed non-Archimedean field which is complete with respect to a non-trivial Archimedean valuation. For each smooth projective algebraic curve  $X$  over  $K$ , there is a Berkovich analytification  $X^*$ . When  $X$  has genus at least 1, there is a unique minimal skeleton  $\Sigma$  in  $X^*$  with the structure of a finite metric graph. An automorphism of  $X$  induces an automorphism of  $X^*$  which restricts to a metric graph automorphism of  $\Sigma$ .

We study the homomorphism of automorphism groups  $\text{Aut}(X^*) \rightarrow \text{Aut}(\Sigma)$  for some examples. We use examples in which  $X$  has genus 2 to show that this homomorphism is not necessarily injective or surjective. We investigate conditions that must hold for a metric graph automorphism of  $\Sigma$  to be the restriction of an automorphism of  $X^*$ . (Received September 17, 2013)