

Walter Gubler: Skeletons and Tropicalizations

A generalization of Berkovich's skeletons will be introduced which is suitable for comparing with tropicalizations. In fact, we will see that such a skeleton can be faithfully embedded into a suitable tropicalization. In this way, we can compare arithmetic and geometric information of the underlying algebraic variety. A rational function induces a piecewise linear function on the skeleton which satisfies a slope formula. The latter is a non-archimedean analogue of the Poincaré-Lelong formula in complex analysis. This is joint work with Joseph Rabinoff and Annette Werner.