

Aaron Levin

Michigan State University

Some generalizations of the Nochka-Ru-Wong theorem

In 1983, Nochka proved a conjecture of Cartan, yielding a generalization of Cartan's Second Main Theorem for hyperplanes to linearly degenerate holomorphic curves. Building on work of Chen, Ru and Wong simplified the proof of Nochka's theorem and, taking advantage of analogies between Nevanlinna theory and Diophantine approximation, proved a version of Nochka's theorem in Diophantine approximation, generalizing Schmidt's subspace theorem. We study Nochka's theorem and Ru-Wong's theorem, proving versions of these theorems in more general settings. In particular, we prove generalizations to \mathbb{P}^2 and \mathbb{P}^3 for arbitrary hypersurfaces.