

On Lipschitz regularity of analytic sets at infinity

Edson Sampaio¹

¹ Universidade Federal do Ceará

We prove that any complex analytic set in \mathbb{C}^n which is Lipschitz normally embedded at infinity and has tangent cone at infinity that is a linear subspace of \mathbb{C}^n must be an affine linear subspace of \mathbb{C}^n itself. No restrictions on the singular set, dimension or codimension are required. In particular, any complex algebraic set in \mathbb{C}^n which is Lipschitz regular at infinity is an affine linear subspace.