

During the talk a brief introduction to currents was given. Then the main idea behind Duval-Sibony's theorem, characterizing polynomial hulls via currents was shown. Finally items from Dinh-Lawrence's paper on connections between positive currents and p -pseudoconcavity were presented.

Recall that a compact set X in a domain $V \subset \mathbb{C}^n$ is called p -pseudoconcave if the following holds: for any U open and relatively compact in V and any holomorphic map f from a neighborhood of U to \mathbb{C}^p the image of $f(X \cap U)$ is disjoint from the unbounded component of $\mathbb{C}^p \setminus f(X \cap \partial U)$. In particular varieties of pure dimension p are p -pseudoconcave.

The main result presented during the talk is the fact that the support of a positive (p, p) plurisuperharmonic current in V has to be a p -pseudoconcave set.