

Christian Peskine (Pau, april 2013)

A vanishing theorem for smooth projective varieties of codimension 2 in the projective complex space

If X is a smooth projective varieties of dimension $N - 2$ embedded in the projective complex space \mathbb{P}^N , we prove $H^p(J_X(q)) = 0$ for $p + q < N - 2$ and $p < N - 1$.

We conjecture a generalization of this result for smooth projective varieties of higher codimension in a projective complex space, to be compared with Barth and Zak classical vanishing theorems.