

Lefschetz type theorems on weakly 1-complete manifolds

For a holomorphic one-form α on a weakly 1-complete manifold X with certain properties, We will discuss the connectivity of the pair $(\hat{X}, F^{-1}(z))$, where $\pi : \hat{X} \rightarrow X$ is a covering map and F is a holomorphic function on \hat{X} such that $dF = \pi^*\alpha$. We will also talk about the criteria regarding when such a manifold X admits a proper holomorphic mapping onto a Riemann surface.