

CURVATURE OF HIGHER DIRECT IMAGES

YOUNG-JUN CHOI

Department of Mathematics, Pusan National University, Busan

A strong tool for the study of holomorphic families $f : \mathcal{X} \rightarrow S$ of compact Kähler manifolds is the differential geometric investigation of twisted Hodge sheaves $R^q f_* \Omega_{\mathcal{X}/S}^p(E)$, where E denotes a holomorphic line bundle or vector bundle equipped with a hermitian metric.

In this talk, we will discuss the curvature formula of $R^q f_* \Omega_{\mathcal{X}/S}^p(E)$ and various special cases. This is joint work Georg Schumacher.