Holomorphic Sectional Curvature of Projectivized Vector Bundles over Compact Complex Manifolds.

In complex geometry, an often studied phenomenon is the dichotomy between positive and negative curvature. In the positive case, few examples are known of manifolds with metrics of positive curvature. In particular, the geometry of fiber bundles and total spaces of fibrations over positively-curved complex manifolds is quite mysterious. In this talk, we will discuss the existence of (pinched) metrics of positive curvature on a particular type of fiber bundle—namely metrics of positive holomorphic sectional curvature on projectivized vector bundles over compact complex manifolds—as well as some directions in future work. (Received January 28, 2019)