

Fundamental group and Seshadri constants on smooth varieties

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The notion of positivity plays a fundamental role in classical and modern complex geometry. Seshadri constants are numerical invariants which measure the local positivity of a holomorphic line bundle on a smooth projective variety. They are easy to define but unfortunately hard to compute or even estimate. In this talk, I will show that, when the fundamental group of the underlying variety is “large”, we can effectively estimate them up to a finite cover. During the talk I will explain the relevant definitions in detail with the aid of concrete examples, and explain why these numerical invariants are of importance.

This is joint work with G. Di Cerbo.