MINIMUM PRINCIPLE FOR PLURISUBHARMONIC FUNCTIONS

FUSHENG DENG

We start by recalling Kiselman-Loeb's minimum principle for p.s.h functions, and then give an introduction of Berndtsson's integral form of minimum principle and explain it as the positivity of direct images of certain positively curved volume forms. We propose two ways to understand the invariance condition in the minimum principle. One leads to a minimum principle in the context of geometric invariant theory of Stein manifolds, and the other leads to positivity of certain holomorphic vector bundles. Finally we will discuss minimum principle with noncompact group actions.

This talk is based on joint works with Xiangyu Zhou and Huiping Zhang.