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Im Rahmen der

AG Komplexe Analysis

laden wir zu folgendem Vortrag ein:

Characterizations of plurisubharmonic functions and positivity of vector bundles

(Prof. Fusheng Deng, University of Chinese Academy of
Sciences, Beijing)

am **Mittwoch, den 08.01.2020, um 12 Uhr c.t. in D.13.15.**

Abstract: Hörmander's L^2 -theory for $\bar{\partial}$ and Ohsawa-Takegoshi extension theorem are two fundamental theories in several complex variables and complex geometry. In both theories, plurisubharmonic functions are used as weights and play a key role. It is natural to ask if plurisubharmonic functions are the only choice for weights in both theories? In this lecture, we will answer this question affirmatively and give characterizations of plurisubharmonic functions in terms of L^p -properties of $\bar{\partial}$, which can be seen as a version of the converses of Hörmander's L^2 estimate of $\bar{\partial}$ and Ohsawa-Takegoshi extension theorem. We will also discuss how to develop these ideas to study curvature positivity of holomorphic vector bundles of higher rank. This talk is based on a series of works joint with J. Ning, Z. Wang, L. Zhang, and X. Zhou.

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina