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Im Rahmen der

AG Komplexe Analysis

laden wir zu den folgenden beiden Vorträgen ein:

CR-invariance of Diederich-Fornaess and Steinness indices

&

Diederich-Fornaess and Steinness indices for an abstract CR manifold

(Dr. Yihun Yum, POSTECH, South Korea)

Die Vorträge finden statt am **Mittwoch, den 15.05.2019 im Raum G.16.09.**

CR-invariance of Diederich-Fornaess and Steinness indices (16:00-17:00). Let Ω be a smooth bounded pseudoconvex domain in $\mathbb{C}^n$. The Diederich-Fornaess index and the Steinness index of Ω are defined by

$$DF(\Omega) := \sup_{\rho}\{0 < \eta < 1 : -(-\rho)^\eta \text{ is strictly plurisubharmonic on } \Omega\},$$

$$S(\Omega) := \inf_{\rho}\{\eta > 1 : \rho^\eta \text{ is strictly plurisubharmonic on } \overline{\Omega}^\complement \cap U$$

$$\text{for some neighborhood } U \text{ of } \partial\Omega\}.$$

We will first see basic properties and known results about $DF(\Omega)$ and $S(\Omega)$. Then we prove that $DF(\Omega)$ and $S(\Omega)$ are invariant under CR-diffeomorphisms.

Diederich-Fornaess and Steinness indices for an abstract CR manifold (17:00-18:00). Let Ω be a smooth bounded pseudoconvex domain in $\mathbb{C}^n$. We characterize the Diederich-Fornaess index and Steinness index in terms of differential inequlity on the set of weakly pseudoconvex boundary points. From this result, we will see how we can define those two indices on an abstract CR manifold.

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina