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Im Rahmen der

AG Komplexe Analysis

laden wir ein zu folgendem Vortrag:

Weighted Bernstein-Markov inequality on unbounded sets in $\mathbf{C}^n$ (Nguyen Quang Dieu, Ha Noi National University of Education)

am **Montag, den 05.12.2011, um 16 Uhr c.t. in Raum D.13.15**.

Abstract: Let E be a Borel (not necessarily bounded) non-pluripolar subset of $\mathbf{C}^n, \omega \geq 0$ be an upper-semicontinuous (usc. for short) function defined on E and μ be a positive Borel measure on E. We say that ω is an admissible weight if the following conditions hold.

(i) $\{\omega > 0\}$ is non-pluripolar.

(ii) $\sup_{z \in E} |z|\omega(z) < \infty$.

The aim of this talk is to study conditions under which the triple (E, μ, ω) satisfies the Bernstein-Markov property when E is unbounded. More precisely, for every $\varepsilon > 0$, there exists $C_\varepsilon > 0$ such that for every $P \in \mathbf{C}[z_1, \cdots, z_n]$, the ring of polynomials of n complex variables the following inequality holds

$$\|\omega^{\deg P} P\|_E \leq C_\varepsilon (1+\varepsilon)^d \|\omega^{\deg P} P\|_{L^2(E,\mu)}.$$

Here $\|\omega^d P\|_E$ and $\|\omega^d P\|_{L^2(E,\mu)}$ denotes the sup norm and the L^2 norm with respect to $d\mu$ of the weighted polynomial $\omega^d P$. The case when E is bounded has been studied throughly by Bloom and Levenberg. This is joint work with Pham Hoang Hiep.

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina