



Im Rahmen der

AG Komplexe Analysis

laden wir zu folgendem Vortrag ein:

Kolmogorov's problem on width asymptotics for condensers in \mathbb{C}^n **(Prof. Vyacheslav Zakharyuta, Sabancı University, Turkey)**

am Montag, den 15.10.2012, um 16 Uhr c.t. in Raum D.13.15.

Abstract: Let K be a compact set in an open set D on a Stein manifold Ω of dimension n . We denote by $H^\infty(D)$ the Banach space of all bounded and analytic in D functions endowed with the uniform norm and by A_K^D a compact subset of the space $C(K)$ consisted of all restrictions of functions from the unit ball $\mathbb{B}_{H^\infty(D)}$. In 1950ies Kolmogorov posed a problem: does there exist a constant τ such that the asymptotic holds

$$\mathcal{H}_\varepsilon(A_K^D) \sim \tau \left(\ln \frac{1}{\varepsilon} \right)^{n+1}, \quad \varepsilon \rightarrow 0,$$

where $\mathcal{H}_\varepsilon(A_K^D)$ is the ε -entropy of the compactum A_K^D . I give a survey of results concerned with this problem and a related problem on the strict asymptotics of Kolmogorov diameters of the set A_K^D with respect to the unit ball in the space $C(K)$. We describe a progress in studying of these problems, beginning with initial results of 1950ies, in the closed connection with the problem on existence of a common basis for the spaces $A(K)$ and $A(D)$ with good estimates on sublevel sets of extremal plurisubharmonic function for the pair (condenser) (K, D) .

Alle Interessenten sind herzlich eingeladen!

gez. Prof. N. Shcherbina